MONASH University
Science

Bachelor of Biomedical Science/Bachelor of Science 2009

Students must complete 96 points of science units for the science component of the double degree. The 96 points of science units must include:

1) The level two core unit SCI2010
2) A major sequence in one of the following science areas: biological sciences, chemistry, genetics, physics, mathematics, or statistics
3) A minor sequence in a different area of science. For details of available science minor sequences please consult the section "Science areas of study and sequences' in the Undergraduate Handbook
4) A maximum of 36 points of level one units and a minimum of 24 points of level three units

Given the overlap between some areas of science and the core units of the biomedical sciences component, careful course planning is required. If prohibitions exist between compulsory BMS units and science units for a student's major or minor science area of study then students are required to take the BMS unit and may be exempted from the science unit for their intended sequence requirements. In all cases, students replace the exempted units with science units to complete the required 96 points of science units. All overlaps between BMS and science units and the implications for a student's intended major or minor area of study will be worked out with a Faculty course advisor on a case by case basis.

Students in the double degree cannot enrol into the following science units because they are equivalent to compulsory BMS units:

- BCH2022
- GEN2041 and GEN2052
- MIC2022
- MOL2011 and MOL2022
- PHY2011, PHY2021 and PHY2032

The following information provides further details of the enrolment into major and minor sequences in a science area of study for students who have completed BMS units that have prohibitions with science units.

Major sequence in a science area of study

The major sequence in science **must** be taken from one of the areas of biological sciences, chemistry, genetics, physics, mathematics, or statistics.

Biological sciences
- Biological sciences
- Ecology
- Environmental and conservation biology
- Marine and freshwater biology
- Plant sciences
- Zoology

Chemistry

Genetics*****

Mathematics
- Applied mathematics
- Computational mathematics
- Mathematics
- Pure mathematics

Physics

Statistics
- Mathematical statistics

*****If students are completing a **major sequence in genetics** then they will be given exemptions for GEN2041 and GEN2052, as BMS2042 and BMS2062 give sufficient preparation for the level three genetics units. Students replace the exempted second year genetics units with two other science units in order to complete 96 points of science.

Minor sequence in a science area of study

The minor sequence in science must be from one of the sequences listed in the 'Science areas of study and sequences' section of the Undergraduate Handbook. If overlap exists between compulsory BMS units and science units for a minor sequence then students are required to take the BMS unit and replace the exempted unit with another level two or level three science unit relevant to the minor area of study.

MINOR SEQUENCE	EXEMPTIONS	BMS EQUIVALENT	REQUIRED UNITS TO COMPLETE MINOR SEQUENCE
Biochemistry	BCH2022	BMS2021	BCH2011 and one level three BCH unit
Genetics	GEN2041 GEN2052	BMS2042 BMS2062	Two level three GEN units
Human pathology	MOL2011	BMS1062	DEV2022 and one of HUP3011 or HUP3022
Microbiology	MIC2022	BMS2052	MIC2011 and one level three MIC unit
Molecular biology	MOL2011 MOL2022	BMS1062 BMS2062	Two of the level three units for a major in molecular biology
Pharmacology	PHY2021	BMS2031	PHA2022 and one level three PHA unit
Physiology	level two PHY requirements	BMS1052 BMS2031	Two level three PHY units

Additional major sequence in science area of study

It may be possible to use the elective units within the degree to extend the science minor sequence into a major sequence or to complete a second major in some science areas of study, including biomedical science areas. The following arrangements apply for majors involving sciences units that have prohibitions with biomedical science units.

MAJOR SEQUENCE	EXEMPTIONS	BMS EQUIVALENT	REQUIRED UNITS TO COMPLETE MAJOR SEQUENCE
Biochemistry	BCH2022	BMS2021	BCH2011 and four of BCH3021, BCH3031, BCH3042, BCH3052 or BCH3990
Biochemistry and molecular biology	MOL2011 MOL2022	BMS1062 BMS2062	BCH3031 and BCH3052 and two of BCH3021, BCH3042 or BCH3990
Biotechnology	MOL2011 MOL2022	BMS1062 BMS2062	Four of the level three units for major in Biotechnology
Genetics	GEN2041 + GEN2052	BMS2042 + BMS2062	Four of GEN3030, GEN3040, GEN3051, GEN3062 or GEN3990
Human Pathology	MOL2011	BMS1062	DEV2022, HUP3011, HUP3022 and two of DEV3022, BCH3021, BCH3042, IMM3042, MIC3022, MIC3032 or MIC3041.
Immunology	BCH2022 OR	BMS2021	IMM2011 and IMM3031, IMM3042, IMM3051 and IMM3062
	GEN2041 OR	BMS2042	
	MIC2022 OR	BMS2052	
	MOL2011 OR	BMS1062	
	MOL2022 OR	BMS2062	
	PHY2021	BMS2031	
Microbiology	MIC2022	BMS2052	MIC2011 and four of MIC3011, MIC3022, MIC3032, MIC3041 or MIC3990
Microbiology and molecular biology	MOL2011 MOL2022	BMS1062 BMS2062	Four of MIC3011, MIC3022, MIC3032, MIC3041 or MIC3990
Molecular biology	MOL2011 MOL2022	BMS1062 BMS2062	BCH3031, MIC3011, GEN3040, and one of BCH3052, MIC3022, GEN3030, BCH3990, MIC3990, BCH2011, MIC2011, GEN3990, or BTH3611
Pharmacology	PHY2021/2021/2032	BMS1052 + BMS2031 equivalent to level two PHY requirements	PHA3011, PHA3021 and two of PHA3032, PHA3042, PHA3052 or PHA3990 ***(NB: Students may still complete PHA2022)***
Physiology	level two PHY requirements	BMS1052 + BMS2031	Four of PHY3012, PHY3072, PHY3082, PHY3111, PHY3171, PHY3181 or PHY3990

No exemptions apply to the following majors:

- Developmental biology
- Immunology and human pathology