

B1380 Bachelor of Science (Major: Genetics and Molecular Biology)

Academic Chair: Dr Ravi Tiwari, R. Tiwari@murdoch.edu.au Start Date: Semester 1, 2025

Year 1 – 2025	Semester 1 Units	CP	Semester 2 Units	CP
	BMS100 Transition into Biomedical Sciences	3	BIO152 Cell Biology	3
	BMS101 Introduction to the Human Body	3	CHE144 Foundations of Chemistry	3
	MAS183 Statistical Data Analysis	3	BMS103 Introduction to Medical, Molecular and Forensic Sciences	3
	CHE140 Fundamentals of Chemistry	3	Elective	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12
Year 2 - 2026	Semester 1 Units	CP	Semester 2 Units	CP
	BIO282 Molecular Biology	3	BIO247 Biochemistry	3
	BMS212 Medical Microbiology*	3	Career Learning Unit#	3
	Elective	3	General Elective	3
	Elective	3	General Elective	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12
Year 3 - 2027	Semester 1 Units	CP	Semester 2 Units	CP
	BIO394 Genetic Engineering	3	BIO390 Metabolic & Cellular Biochemistry	3
	BIO356 Genetics & Evolution	3	BIO378 Systems Biology	3
	Elective	3	Career Learning Unit#	3
	Elective	3	General Elective	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12

TOTAL CREDIT POINTS 72

* Or:

BIO246 Microbiology

#Career Learning Unit

Choose any two from the following:

- MSP200 Building Enterprise Skills
- *MSP201 Real World Learning
- MSP202 Data Analytics and Storytelling in the 21st Century
- VLS302 Professional Placement in Veterinary and Life Sciences

*MSP201 is not a self-enrolled unit and requires an approved application to grant enrolment. Students are required to organise their real-world learning experience prior to application for enrolment. See more info about the unit, eligibility, and application deadlines in the Handbook: <https://v3.pebblepad.com.au/spa/#/public/89jpzrpZ9j9jctmdcjxqHpjrrM>".

Note: To complete a second major within the B1380 Bachelor of Science, take the core units of that major in place of the indicated general electives.

Major Prerequisite: Chemistry Background

Students who achieved a final scaled score of 50 percent or more in Chemistry 3A/3B or Chemistry ATAR within the past three years will be granted a preclusion from CHE140 Fundamentals of Chemistry (and will take another unit in its place). Students who have completed previous chemistry not stated above should consult their Academic Chair for clarification of their enrolment requirements.

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General Electives can be an elective unit or units towards a second major/minor. Students should keep in mind the Part 1 rule where no more than ten 100 level units are allowed.

Recommended Electives:

BMS107 Foundations of Vertebrate Form and Function
CHE103 Introduction to Forensic Science
BMS206 Biomedical Physiology
BMS211 Medical Immunology and Molecular Genetics
BMS314 Pathological Basis of Disease
BMS315 Advances in Medical Science
BMS218 Haematology

BMS327 Diagnostic Genomics
BMS213 Forensic Anatomy and Anthropology
BIO367 Forensic Toxicology
BIO309 Omics Technologies & Bioinformatics
BIO311 Interactive Data Analytics and Visualisation
MAS223 Applied Statistics
MAS224 Biostatistical Methods
BIO359 Forensic DNA Analysis
BMS321 Histology

Please note: This course plan is a sample only and must be read in conjunction with the full course structure, unit prerequisites and enrolment options as outlined in the [Handbook](#). This information is correct as at 4/11/2024.