

# 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	<b>Semester 1 Units</b>	<b>CP</b>	<b>Semester 2 Units</b>	<b>CP</b>
	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	MSP100 Career Learning	3
	CHE140 Fundamentals of Chemistry	3	Elective	3
	<b>Winter Units</b>	<b>CP</b>	<b>Summer Units</b>	<b>CP</b>
	<b>Total</b>	<b>12</b>	<b>Total</b>	<b>12</b>
Year 2 - 2026	<b>Semester 1 Units</b>	<b>CP</b>	<b>Semester 2 Units</b>	<b>CP</b>
	BIO282 Molecular Biology	3	BIO247 Biochemistry	3
	BMS212 Medical Microbiology*	3	Career Learning Unit <sup>#</sup>	3
	Elective	3	General Elective	3
	Elective	3	General Elective	3
	<b>Winter Units</b>	<b>CP</b>	<b>Summer Units</b>	<b>CP</b>
	<b>Total</b>	<b>12</b>	<b>Total</b>	<b>12</b>
Year 3 - 2027	<b>Semester 1 Units</b>	<b>CP</b>	<b>Semester 2 Units</b>	<b>CP</b>
	BIO394 Genetic Engineering	3	BIO390 Metabolic & Cellular Biochemistry	3
	BIO356 Genetics & Evolution	3	BIO378 Systems Biology	3
	Elective	3	Career Learning Unit <sup>#</sup>	3
	Elective	3	General Elective	3
	<b>Winter Units</b>	<b>CP</b>	<b>Summer Units</b>	<b>CP</b>
	<b>Total</b>	<b>12</b>	<b>Total</b>	<b>12</b>

**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 21<sup>st</sup> 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/89jpzrpZ9j9jctmdcjxqHjrrM>”.

**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.

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

**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.