

Academic Chairs:

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Course Core Units

Students must complete (or be exempt from) the following units: **ANS100, MAS183, CHE140, BIO152**

Note: Students who achieved a final scaled score of 50 percent or more in Chemistry 3A/3B or Chemistry ATAR within the past three years should apply for exemption for CHE140 Fundamentals of Chemistry.

Note: Students commencing pre 2024 that have completed BSC100 have exemption for ANS100.

Animal Science Major

Students must complete the following units: **BMS107, ANS101, VET272, ANS230, ANS221, VET380, ANS333, ANS337**

Crop and Pasture Science Major

Students must complete the following units: **ANS101, ENV243, ANS207, ANS208, ANS309, ANS311, ANS312**

Plus one units from this list: **ENV303, BIO282, BIO257, MAS223, BIO246**

Students commencing pre 2024 that have completed ANS105 have exemption for ANS101.

Career Learning Spine

Students must complete **THREE** career learning spine units from the approved list:

Highly recommended: **ANS301, ANS302, ANS303, ANS305 (can be repeated for credit), ANS200**

Also suitable: **MSP100, MSP200, MSP201, MSP202, VLS302**

General Electives added to bring total credit points to 72 points

Select general electives to bring total credit points to 72 points

- Typically **TWO** general electives, or
- **THREE** general electives if awarded exemption for CHE140

The timing and type of general elective units is flexible. The only restriction on general electives is that no more than 30 credit points can come from Part 1 units (i.e. you cannot count more than ten 100- level units for completion of the degree)

The general elective slot can be used to complete a minor. At this point in time, a minor will not be named on the degree (certificate) for students that are completing a double major. This is a university policy and is under review.

Bachelor of Agricultural Science (Animal Science and Crop & Pasture Science)

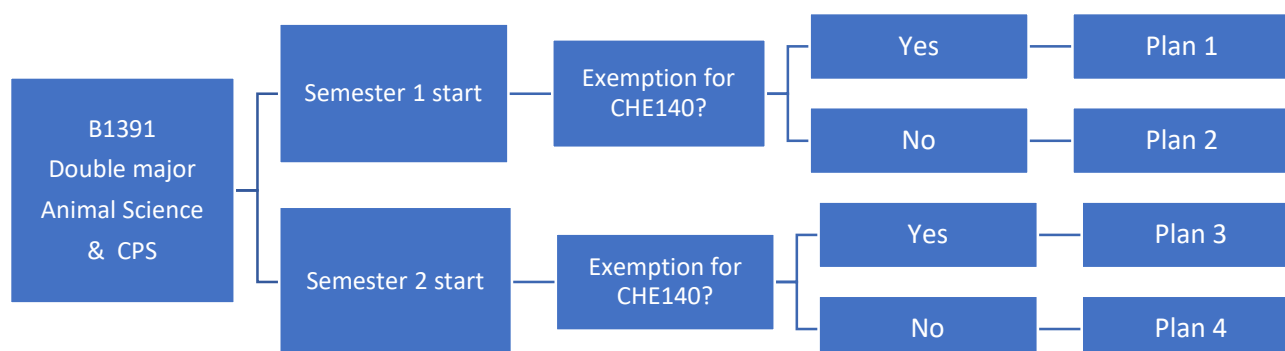
Recommended general electives:

- **ANS102** Introduction to the Animal Body – 3 pts (S1)
- **ANS363** Applied Animal Agriculture – 3 pts (S2 or year)
- **ANS364** Applied Animal Breeding – 3 pts (S1 or year)
- **ANS365** Equine Physiology and Behaviour – 3 pts (S1)
- **ANS366** Equine Nutrition and Health – 3pts (S2)
- **ANS300** Applied Livestock Health Management - 3 pts (S2)
- **ANS313** Pathology & Diseases of Production Animals - 3 pts (S2)

“Extra” career learning spine units may be used as general electives, for example

- **ANS301** International Study Tour Opportunities – 3 pts (S2 – with tour usually conducted in winter break)
Note - subject to availability
- **ANS302** Farm Placement – 3 pts (Year – commence in S1) *Students should commence ANS302 in Sem 1*
- **ANS303** Livestock Industry Career Readiness – 3 pts (S2)
- **ANS305** Advanced Agricultural Skills – 3 pts (MURDOCH: S1, S2, Summer, Winter) *Note: Students may be able to do repeat ANS305 for credit*
- **ANS200** International Field Work in Agricultural and Environmental Sciences – Thailand – 3 pts. S1 but tour completed in summer break. Subject to availability.

Choose the correct course plan template



Please note: These course plans are a sample only and must be read in conjunction with the full course structure, unit prerequisites and enrolment options as outlined in the [Handbook](#). Students should note that due to unit prerequisites, commencing study in Semester 2 may extend the duration of the course. This information is correct as at DD/MM/YY.

PLAN 1: exemption for CHE140 (chemistry)

Start Date: Semester 1 2024

Year 1 – 2024	Semester 1 Units	CP	Semester 2 Units	CP
	ANS100 Introduction to Agricultural Science	3	ANS101 Introduction to Livestock Science & Genetics	3
	MAS183 Statistical data analysis	3	BIO152 Cell Biology	3
	BIO152 or general elective ^A	3	BMS107 Foundations of Vertebrate Form & Function	3
	Career Spine or General elective ^B	3	Career Learning Spine or General Elective ^C	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12
Year 2 - 2025	Semester 1 Units	CP	Semester 2 Units	CP
	VET272 Comparative Mammalian Biochemistry	3	ANS221 Animal Structure and Function	3
	ANS230 Animal Production Systems II	3	ANS207 Crop & Pasture Science	3
	ENV243 Water & Earth Science	3	ANS208 Crop Protection & Plant Biosecurity	3
	Career Learning Spine or General Elective ^D	3	CPS elective (ENV303 or BIO257 or MAS223) or Career Learning Spine or General Elective	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12
Year 3 - 2026	Semester 1 Units	CP	Semester 2 Units	CP
	VET380 Veterinary Nutrition & Animal Toxicology	3	ANS337 Animal Industry Experience	3
	ANS333 Animal Production Systems III	3	ANS311 Agricultural & Environmental Technologies	3
	ANS309 Agricultural Markets, Economics & Policy	3	ANS312 Advanced Crop & Pasture Science	3
	Alternate CPS elective (BIO282 or BIO246) or Career Learning Spine or General Elective	3	Career Learning Spine or General Elective	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12

TOTAL CREDIT POINTS 72

^A Students who achieved a final scaled score of 50 percent or more in Chemistry 3A/3B or Chemistry ATAR within the past three years should apply for exemption for CHE140 Fundamentals of Chemistry.

- Students with a strong science background can consider completing BIO152 in S1, then ANS366 (S2) or ANS305 (summer)
- Otherwise, this slot can be used for a general elective (ANS102 is highly recommended) or career learning spine unit

^B ANS102 Introduction to Animal Body highly recommend

^C VET101 recommended for students aiming to transfer into Year 2 of the veterinary program

^D Students wanting to do ANS302 Farm Placements (Y enrolment) should commence in semester 1

PLAN 2: No exemption for CHE140 (chemistry)

Start Date: Semester 1 2024

Year 1 – 2024	Semester 1 Units	CP	Semester 2 Units	CP
	ANS100 Introduction to Agricultural Science	3	ANS101 Introduction to Livestock Science & Genetics	3
	MAS183 Statistical data analysis	3	BIO152 Cell Biology	3
	CHE140 Fundamentals of Chemistry	3	BMS107 Foundations of Vertebrate Form & Function	3
	General elective ^A	3	General elective ^B	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12
Year 2 – 2025	Semester 1 Units	CP	Semester 2 Units	CP
	VET272 Comparative Mammalian Biochemistry	3	ANS221 Animal Structure and Function	3
	ANS230 Animal Production Systems II	3	ANS207 Crop & Pasture Science	3
	ENV243 Water & Earth Science	3	ANS208 Crop Protection & Plant Biosecurity	3
	Career Learning Spine or General Elective ^C	3	CPS elective (ENV303 or BIO257 or MAS223) or Career Learning Spine or General Elective	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12
Year 3 – 2026	Semester 1 Units	CP	Semester 2 Units	CP
	VET380 Veterinary Nutrition & Animal Toxicology	3	ANS337 Animal Industry Experience	3
	ANS333 Animal Production Systems III	3	ANS311 Agricultural & Environmental Technologies	3
	ANS309 Agricultural Markets, Economics & Policy	3	ANS312 Advanced Crop & Pasture Science	3
	Alternate CPS elective (BIO282 or BIO246) or Career Learning Spine or General Elective	3	Career Learning Spine or General Elective	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12

TOTAL CREDIT POINTS 72

^A ANS102 Introduction to Animal Body highly recommend

^B VET101 recommended for students aiming to transfer into Year 2 of the veterinary program

^C Students wanting to do ANS302 Farm Placements (Y enrolment) should commence in semester 1

PLAN 3: exemption for CHE140 (chemistry)

Start Date: Semester 2 2024

Year 1 – 2024			Semester 2 Units	CP
			ANS100 Introduction to Agricultural Science	3
			BIO152 Cell Biology	3
			BMS107 Foundations of Vertebrate Form & Function	3
			ANS101 Introduction to Livestock Science & Genetics	3
			Summer Units	CP
		Total	12	
Year 2 - 2025	Semester 1 Units	CP	Semester 2 Units	CP
	MAS183 Statistical Data Analysis	3	ANS221 Animal Structure and Function	3
	VET272 Comparative Mammalian Biochemistry	3	ANS207 Crop & Pasture Science	3
	ANS230 Animal Production Systems II	3	ANS208 Crop Protection & Plant Biosecurity	3
	Career spine or general elective ^A	3	CPS elective (ENV303 or BIO257 or MAS223) or Career Learning Spine or General Elective	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12
Year 3 - 2026	Semester 1 Units	CP	Semester 2 Units	CP
	ANS333 Animal Production Systems III	3	ANS337 Animal Industry Experience	3
	VET380 Veterinary Nutrition & Animal Toxicology	3	ANS311 Agricultural & Environmental Technologies	3
	ENV243 Water & Earth Science	3	ANS312 Advanced Crop & Pasture Science	3
	Alternate CPS elective (BIO282 or BIO246) or Career Learning Spine or General Elective	3	Career Learning Spine or General Elective	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12
Year 4 - 2027	Semester 1 Units	CP		
	ANS309 Agricultural Markets, Economics & Policy	3		
	Career Learning Spine or General Elective	3		
	Career Learning Spine or General Elective	3		
	Career Learning Spine or General Elective	3		
	Winter Units	CP		
	Total	12		

TOTAL CREDIT POINTS 72

^A ANS102 Introduction to Animal Body highly recommended

^B Students wanting to do ANS302 Farm Placements (Y enrolment) should commence in semester 1 (highly recommended for students applying for transfer to veterinary science)

Bachelor of Agricultural Science (Animal Science and Crop & Pasture Science)

PLAN 4: No exemption for CHE140 (chemistry)

Start Date: Semester 2 2024

Year 1 – 2024			Semester 2 Units	CP
			ANS100 Introduction to Agricultural Science	3
			CHE140 Fundamentals of Chemistry	3
			BMS107 Foundations of Vertebrate Form & Function	3
			ANS101 Introduction to Livestock Science & Genetics	3
			Summer Units	CP
		Total	12	
Year 2 - 2025	Semester 1 Units	CP	Semester 2 Units	CP
	MAS183 Statistical Data Analysis	3	ANS221 Animal Structure and Function	3
	BIO152 Cell Biology	3	ANS207 Crop & Pasture Science	3
	ANS230 Animal Production Systems II	3	ANS208 Crop Protection & Plant Biosecurity	3
	Career spine or general elective ^A	3	CPS elective (ENV303 or BIO257 or MAS223) or Career Learning Spine or General Elective	3
	Winter Units	CP	Summer Units	CP
Total		12	Total 12	
Year 3 - 2026	Semester 1 Units	CP	Semester 2 Units	CP
	ANS333 Animal Production Systems III	3	ANS337 Animal Industry Experience	3
	VET272 Comparative Mammalian Biochemistry	3	ANS311 Agricultural & Environmental Technologies	3
	ENV243 Water & Earth Science	3	ANS312 Advanced Crop & Pasture Science	3
	Alternate CPS elective (BIO282 or BIO246) or Career Learning Spine or General Elective	3	Career Learning Spine or General Elective	3
	Winter Units	CP	Summer Units	CP
Total		12	Total 12	
Year 4 - 2027	Semester 1 Units	CP		
	ANS309 Agricultural Markets, Economics & Policy	3		
	VET380 Veterinary Nutrition & Animal Toxicology	3		
	Career Learning Spine or General Elective	3		
	Career Learning Spine or General Elective	3		
	Winter Units	CP		
Total		12		

TOTAL CREDIT POINTS 72

^A ANS102 Introduction to Animal Body highly recommended

^B Students wanting to do ANS302 Farm Placements (Y enrolment) should commence in semester 1 (highly recommended for students applying for transfer to veterinary science)

Bachelor of Agricultural Science (Animal Science and Crop & Pasture Science)

Example 1:

- Exemption for CHE140 based on passing ATAR chemistry
- Interested in maximum hands-on learning and building relevant employability skills
- Strong science background (biology, human biology) and skills in independent/self-directed learning

Start Date: Semester 1 2024

Year 1 – 2024	Semester 1 Units	CP	Semester 2 Units	CP
	ANS100 Introduction to Agricultural Science	3	ANS101 Introduction to Livestock Science & Genetics	3
	MAS183 Statistical data analysis	3	BMS107 Foundations of Vertebrate Form & Function	3
	Elective 1: ANS102 Introduction to the Animal Body	3	Elective 2: ANS366 Equine Performance and Management	3
	BIO152 Cell Biology		Elective 3: ANS305 (project or placement)	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12
Year 2 – 2025	Semester 1 Units	CP	Semester 2 Units	CP
	VET272 Comparative Mammalian Biochemistry	3	ANS221 Animal Structure and Function	3
	ANS230 Animal Production Systems II	3	ANS207 Crop & Pasture Science	3
	ENV243 Water & Earth Science	3	ANS208 Crop Protection & Plant Biosecurity	3
	Spine 1: ANS305 (placement) or ANS302 (farm placements)	3	Spine 2: ANS301 (tour)	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12
Year 3 – 2026	Semester 1 Units	CP	Semester 2 Units	CP
	VET380 Veterinary Nutrition & Animal Toxicology	3	ANS337 Animal Industry Experience	3
	ANS333 Animal Production Systems III	3	ANS311 Agricultural & Environmental Technologies	3
	ANS309 Agricultural Markets, Economics & Policy	3	ANS312 Advanced Crop & Pasture Science	3
	CPS elective (BIO282 or BIO246)	3	Spine 3: ANS303 (Career Readiness)	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12

TOTAL CREDIT POINTS 72

Example 2:

- Exemption for CHE140
- Still developing independent learning skills

Start Date: Semester 1 2024

Year 1 – 2024	Semester 1 Units	CP	Semester 2 Units	CP
	<i>ANS100 Introduction to Agricultural Science</i>	3	<i>ANS101 Introduction to Livestock Science & Genetics</i>	3
	<i>MAS183 Statistical data analysis</i>	3	<i>BMS107 Foundations of Vertebrate Form & Function</i>	3
	<i>Elective 1: ANS102 Introduction to the Animal Body</i>	3	<i>BIO152 Cell Biology</i>	3
				3
	Winter Units	CP	Summer Units	CP
			<i>Elective 2: ANS305 project</i>	
	Total	9	Total	12
Year 2 - 2025	Semester 1 Units	CP	Semester 2 Units	CP
	<i>VET272 Comparative Mammalian Biochemistry</i>	3	<i>ANS221 Animal Structure and Function</i>	3
	<i>ANS230 Animal Production Systems II</i>	3	<i>ANS207 Crop & Pasture Science</i>	3
	<i>ENV243 Water & Earth Science</i>	3	<i>ANS208 Crop Protection & Plant Biosecurity</i>	3
	<i>Elective 3: ANS364 Applied Animal Production</i>	3	<i>Spine 1: ANS301 (tour)</i>	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12
Year 3 - 2026	Semester 1 Units	CP	Semester 2 Units	CP
	<i>VET380 Veterinary Nutrition & Animal Toxicology</i>	3	<i>ANS337 Animal Industry Experience</i>	3
	<i>ANS333 Animal Production Systems III</i>	3	<i>ANS311 Agricultural & Environmental Technologies</i>	3
	<i>ANS309 Agricultural Markets, Economics & Policy</i>	3	<i>ANS312 Advanced Crop & Pasture Science</i>	3
	<i>CPS elective (BIO282 or BIO246)</i>	3	<i>Spine 3: ANS303 (Career Readiness)</i>	3
	Winter Units	CP	Summer Units	CP
	<i>Spine 2: ANS305 (placement)</i>			
	Total	15	Total	12

TOTAL CREDIT POINTS 72

Example 3

- No exemption for CHE140
- Still developing independent learning skills
- Keen to get hands on experience and do as many tours as possible

Year 1 – 2024	Semester 1 Units	CP	Semester 2 Units	CP
	<i>ANS100 Introduction to Agricultural Science</i>	3	<i>ANS101 Introduction to Livestock Science & Genetics</i>	3
	<i>MAS183 Statistical data analysis</i>	3	<i>BIO152 Cell Biology</i>	3
	<i>CHE140 Fundamentals of Chemistry</i>	3	<i>BMS107 Foundations of Vertebrate Form & Function</i>	3
	<i>Elective 1: ANS102 Introduction to the Animal Body</i>	3	<i>Elective 2: ANS305 project or placement)</i>	3
	Winter Units	CP	Summer Units	CP
			<i>Spine 1: ANS200 (Thailand tour)</i>	
	Total	12	Total	15
Year 2 – 2025	Semester 1 Units	CP	Semester 2 Units	CP
	<i>VET272 Comparative Mammalian Biochemistry</i>	3	<i>ANS221 Animal Structure and Function</i>	3
	<i>ANS230 Animal Production Systems II</i>	3	<i>ANS207 Crop & Pasture Science</i>	3
	<i>ENV243 Water & Earth Science</i>	3	<i>ANS208 Crop Protection & Plant Biosecurity</i>	3
			<i>Spine 2: ANS301 (tour)</i>	3
	Winter Units	CP	Summer Units	CP
	Total	9	Total	12
Year 3 – 2026	Semester 1 Units	CP	Semester 2 Units	CP
	<i>VET380 Veterinary Nutrition & Animal Toxicology</i>	3	<i>ANS337 Animal Industry Experience</i>	3
	<i>ANS333 Animal Production Systems III</i>	3	<i>ANS311 Agricultural & Environmental Technologies</i>	3
	<i>ANS309 Agricultural Markets, Economics & Policy</i>	3	<i>ANS312 Advanced Crop & Pasture Science</i>	3
	<i>CPS elective (BIO282 or BIO246)</i>	3	<i>Spine 3: ANS303 (Career Readiness)</i>	3
	Winter Units	CP	Summer Units	CP
	Total	12	Total	12

TOTAL CREDIT POINTS 72

Pre-requisite checklist 2024

Core

Code	Name	Pre-req	Enrolment notes
ANS100	Introduction to Agricultural Science	None	
MAS183	Statistical Data Analysis	None	
CHE140	Fundamentals of Chemistry	None	
BIO152	Cell Biology	CHE140	Recommend completing 12 points prior to enrolment

Major : Animal Science

Code	Name	Pre-req	Enrolment notes
ANS101	Introduction to Livestock Science & Genetics	None	
BMS107	Foundations of Vertebrate Form and Function	None	It is recommended that students complete BMS101 or ANS102 prior to enrolment.
VET272	Veterinary Biochemistry	BIO152	
ANS230	Animal Production Systems II	ANS101	
ANS221	Animal Structure & Function	BIO152 BMS107	
ANS333	Animal Production Systems III	ANS221 ANS230	
VET380	Veterinary Nutrition & Animal Toxicology	VET272 ANS221	Concurrent enrolment with VET272 considered only under exceptional circumstances
ANS337	Advanced Animal Production	ANS333	

Major: Crop & Pasture Science

Code	Name	Pre-req	Enrolment notes
ANS101	Introduction to Livestock Science & Genetics	None	
ENV243	Water & Earth Science	None	
ANS207	Crop & Pasture Science	CHE140	
ANS208	Crop Protection & Plant Biosecurity	ANS100	
ANS309	Agricultural Markets, Economics & Policy	None	
ANS311	Agricultural & Environmental Technologies	None	
ANS312	Advanced Crop & Pasture Science	ANS207 ANS208	
ENV303	GIS for Environmental Management & Planning	None	Completion of 24 points of 100 level units
BIO282	Molecular Biology	BIO152	
BIO257	Australian Biodiversity	None	
MAS223	Applied Statistics	MAS183	
BIO246	Microbiology	BIO152	

Bachelor of Agricultural Science (Animal Science and Crop & Pasture Science)

Career Learning Spine

Code	Name	Pre-req	Enrolment notes
ANS301	Agricultural Study Tour Opportunities	TBA	Students will need to submit an application for enrolment, please contact Unit Coordinator.
ANS302	Farm Placements	ANS100/ANS101 Or ANS101 (2020-22)	
ANS303	Livestock Industry Career Readiness	ANS333	
ANS305	Advanced Agricultural Career Skills	ANS100/ANS101 Or ANS101 (2020-22)	Some placements may be available for students that have not completed pre-reqs
ANS200	International Field Work in Agricultural and Environmental Sciences – Thailand	None	Students must have completed 24 credit points before enrolling in this unit
MSP100	Career Learning: Managing Your Career	None	
MSP200	Building Employability Skills	None	
MSP201	Real World Learning	None	Successful completion of 24 credit points.
MSP202	The Search for Everything: Data Analytics and Storytelling in the Twenty-First Century	None	
VLS302	Professional Placement in Environmental and Life Sciences	None	Students must have completed 36 credit points towards their degree Students must have a GPA of 2.0 or higher.

Recommended electives

Code	Name	Pre-req	Enrolment notes
ANS102	Introduction to Animal Body	None	
ANS363	Applied Animal Agriculture		Should have completed 24 credit points before enrolling in this unit
ANS364	Applied Animal Breeding		Should have completed 24 credit points before enrolling in this unit
ANS365	Equine Physiology & Behaviour	ANS102/BMS107	
ANS366	Equine Health and Performance	None	Prior completion of BMS107 (or equivalent) is recommended, but not essential.
ANS313	Animal Pathology and Diseases	BIO152 ANS221	Recommended complete VET272 Veterinary Biochemistry as background knowledge where possible.
ANS300	Applied Livestock Health Management	ANS101 VET211	Students will need to submit an application for enrolment
ANS301	Agricultural Study Tour Opportunities	TBA	Students will need to submit an application for enrolment
ANS302	Farm Placements	ANS100/ANS101 Or ANS101 (2020-22)	
ANS303	Livestock Industry Career Readiness	ANS333	Students will need to submit an application for enrolment
ANS305	Advanced Agricultural Career Skills	ANS100/ANS101 Or ANS101 (2020-22)	Some placements may be available for students that have not completed pre-reqs
ANS200	International Field Work in Agricultural and Environmental Sciences – Thailand	None	Students must have completed 24 credit points before enrolling in this unit

Bachelor of Agricultural Science (Animal Science and Crop & Pasture Science)

Recommended minors (noting a minor can't be named on the degree in conjunction at this point – under review)

	Code	Name	Pre-req	Enrolment notes
Applied Animal Production	BIO152	Cell Biology	CHE140	Recommend completing 12 points prior to enrolment
	VET272	Veterinary Biochemistry	BIO152	
	ANS363	Applied Animal Agriculture		Should have completed 24 credit points before enrolling in this unit
	ANS364	Applied Animal Breeding		Should have completed 24 credit points before enrolling in this unit
Equine Science	BIO152	Cell Biology	CHE140	
	BMS107	Foundations of Vertebrate Form and Function	None	It is recommended that students complete BMS101 or ANS102 prior to enrolment.
	ANS365	Equine Physiology & Behaviour	ANS102/BMS107	
	ANS366	Equine Health and Performance	None	Prior completion of BMS107 (or equivalent) is recommended, but not essential.
Molecular Biology	BIO152	Cell Biology	CHE140	Recommend completing 12 points prior to enrolment
	BIO282	Molecular Biology	BIO152	
	BIO246	Microbiology	BIO152	
	BIO394	Genetic Engineering	BIO282	
Applied Statistics	MAS183	Statistical Data Analysis	None	
	MAS182	Intro Calculus with Applications	MAS164	
	MAS223	Applied Statistics	MAS183	
	MAS224	Biostatistics	MAS180/MAS183	
	MAS353	Statistical Design and Data Analysis	MAS222/MAS223/MAS224/MAS230/MAS278/MAS284	
Wildlife Conservation	BIO103	Environmental Biology	None	
	BIO375	Conservation Biology	ENV241	
	BIO376	Wildlife Biology	BIO375	
	ENV241	Ecology	BIO103/BIO180 MAS183	
Plant Biology	BIO245	Plant Evolution, Radiation and Adaptation	BIO103/BIO180	
	BIO103	Environmental Biology	None	
	BIO254	Marine Botany	BIO103/BIO180	
	BIO257	Australian Biodiversity	None	
	ENV334	Environmental Restoration	ENV241	