Federation University | Institute of Innovation, Science and Sustainability

Enrolment Course Structure

Course Code – SI5

Course Name – Bachelor of Science (Veterinary Bioscience)

Locations: MTH, BER, CHLL, ODL

First Year			
Unit Code	**Unit Name**	**Unit Rules**	**CR Points**
Semester 1			
SCBIO1001	Principles of Biology		15
SCCHM1001	Chemistry 1		15
SCCOR1200	Scientific Communication		15
SCBCH1001 or SCENV1002	Introduction to Nutrition or Biodiversity Conservation	(*SCBCH1002* **EX:** EDHPE4001 or HEALT2004)	15
Semester 2			
COOPS1001	Professional Identity (Science)		15
SCCOR1300	Scientific Practice		15
SCBIO1020	Systems Biology	**EX:** HELAT1111, HEALT1112, HEALT1121, HEALT1122	15
	Elective		15

Second Year			
Unit Code	**Unit Name**	**Unit Rules**	**CR Points**
Semester 1			
SCMED2010	Pathophysiology 1	**PR:** SCBIO1020 or HEALT1121 & HEALT1122	15
SCMIC2001	General Microbiology	**PR:** SCBIO1001 or SCBIO1010 **EX:** MICGC2001, MICGC2011 SCBIO1032	15
SCVET2001	Animal Management and Disease	**PR:** SCBIO1020 orSCENV1002	15
	Elective		15
Semester 2			
COOPS2011	Co-op placement 1	**PR:** student must have achieved at least 105 credit points prior to enrolment & COOPS1001	30
SCMOL2001	Biotechnology Laboratory Techniques	**PR:** SCMIC2001	15

SCMED2011	Pathophysiology 2	**PR:** SCBIO1020 or HEALT1121 & HEALT1122	15

Third Year			
Unit Code	**Unit Name**	**Unit Rules**	**CR Points**
Semester 1			
COOPS2012	Co-operative Placement 2 (Science)	**PR:** COOPS1001 & students must have achieved at least 105 credit points prior to enrolment **EX:** COOPC2006, COOPC2026	30
SCMED3010	Pharmacology and Toxicology	**PR:** SCMED2011	15
SCMOL3020	Immunology	**PR:** SCMED2010 **EX:** IMMGC3802, SCMED2020, SCMOL2020	15
Semester 2			
SCMED3034	Histopathology and Haematology	**PR:** SCMED2010 or SCMED2011	15
SCMIC3003	Clinical Microbiology	**PR:** SCMIC2001 or SCMOL2001	15
SCVET3001	Case Studies in Animal Management	**PR:** SCVET2001	15
	Elective		15

Bachelor of Science Major and Minor Sequences

BIOCHEMISTRY

Major
SCBCH2001 Biochemistry
SCBCH2002 Nutrition and Metabolism
SCBCH3010 Advanced Bioanalytical Techniques
SCBIO1001 Principles of Biology
SCCHM1002 Chemistry 2
SCCHM2001 Analytical Techniques
SCCHM3001 Medicinal Chemistry
SCMOL3001 Molecular Cell Biology
Minor
SCBIO1001 Principles of Biology
SCCHM1002 Chemistry 2
SCBCH2001 Biochemistry
SCBCH2002 Nutrition and Metabolism

BREWING

Double Major

SCBCH2001 Biochemistry
SCBCH2002 Nutrition and Metabolism
SCCOR3001 Research Project
SCBRW5081 Brewing Raw Materials
SCBRW5082 The Brewing Process
SCCHM1001 Chemistry 1
SCCHM1002 Chemistry 2
SCCHM2001 Analytical Techniques
SCCHM3003 Food Chemistry
SCFST2023 Food Processing Systems 1
SCFST3026 Product and process Development
SCMIC2001 General Microbiology
SCMIC3002 Food Microbiology
SCMOL2001 Biotechnology Laboratory Techniques

CELL BIOLOGY

Major
SCBIO1001 Principles of Biology
SCBIO1020 Systems Biology
SCBCH2001 Biochemistry
SCMED2010 Pathophysiology 1
SCMOL2010 Mammalian Genetics
SCMOL3001 Molecular Cell Biology
SCMED3010 Pharmacology and Toxicology
SCMOL3020 Immunology
Minor
SCBIO1001 Principles of Biology
SCBIO1020 Systems Biology
SCBCH2001 Biochemistry
SCMOL2010 Mammalian Genetics OR SCMED2010 Pathophysiology 1

CHEMISTRY AND ANALYTICAL SCIENCE

Double Major
SCBCH2001 Biochemistry
SCBCH3010 Advanced Bioanalytical Techniques
SCCHM1002 Chemistry 2
SCCHM2001 Analytical Techniques
SCCHM2002 Environmental Chemistry
SCCHM3001 Medicinal Chemistry
SCCHM3003 Food Chemistry
SCCHM3004 Organic Synthesis for Drug Design
SCCOR3001 Research Project
SCMOL2001 Biotechnology Laboratory Techniques
STATS1000 Statistical Methods
STATS2100 Experimental Design and Analysis
Two of:

- SCENV3400 Wetlands and Water Resources
- SCENV3912 Environmental Assessment
- SCMED3010 Pharmacology and Toxicology
- STATS2101 Statistics for Prediction
- SCMIC3002 Food Microbiology

CHEMISTRY

Major
SCBCH2001 Biochemistry
SCCHM1001 Chemistry 1
SCCHM1002 Chemistry 2
SCCHM2001 Analytical Techniques
SCCHM2002 Environmental Chemistry
SCBCH3010 Advanced Bioanalytical Techniques
SCCHM3001 Medicinal Chemistry
SCCHM3004 Organic Synthesis for Drug Design
Minor
SCCHM1001 Chemistry 1
SCCHM1002 Chemistry 2
SCCHM2001 Analytical Techniques
SCCHM2002 Environmental Chemistry

ECOLOGY

Major
SCENV1001 Environmental Studies
SCENV1002 Biodiversity Conservation
SCENV2100 Australian Fauna ***or*** SCENV2101 Australian Flora
SCENV2200 Population and Community Ecology
SCENV2500 FIELD-BASED INVESTIGATION
SCENV3110 Fire Ecology: Burning Issues for Science and Management
SCENV3204 Arid Zone: Ecology, Management and Challenges
SCENV3802 Wildlife and Ecosystem Conservation
Minor
SCENV1001 Environmental Studies
SCENV1002 Biodiversity Conservation
SCENV2200 Population and Community Ecology
SCENV2100 Australian Fauna

ENVIRONMENTAL RESTORATION

Major
SCENV1001 Environmental Studies
SCENV2101 Australian Flora

SCENV2600 Geographic Information Systems
SCENV2804 Invasive Species: Ecology, Management and Challenges
SCENV3120 Landscape Restoration and Mine Site Rehabilitation
SCENV3500 Climate and Environmental Issues in a Changing World
SCENV3912 Environmental Assessment
SCSUS1500 Sustainable Earth
Minor
SCENV1001 Environmental Studies
SCENV2804 Invasive Species: Ecology, Management and Challenges
SCENV3120 Landscape Restoration and Mine Site Rehabilitation
SCSUS1500 Sustainable Earth

GEOSCIENCE

Double major in Geoscience
SCCHM2002 Environmental Chemistry
SCENV2600 Geographic Information Systems
SCENV3120 Landscape Restoration and Mine Site Rehabilitation
SCENV3500 Climate and Environmental Issues in a Changing World
SCGEO1103 Planet Earth
SCGEO1104 Landscape Evolution
SCGEO2103 Structural Geology
SCGEO2106 Hydrology
SCGEO2107 Fieldwork Principles and Practice
SCGEO2112 Sedimentology and Stratigraphy
SCGEO3102 Petrology
SCGEO3104 Fieldwork
SCGEO3115 Geochemical and Geophysical Techniques
SCGEO3116 Economic Geology

LABORATORY BIOSCIENCE

Major
SCBIO1001 Principles of Biology
SCCHM1002 Chemistry 2
SCCHM2001 Analytical techniques
SCMIC2001 General Microbiology
SCMOL2001 Biotechnology Laboratory Techniques
SCBCH3010 Advanced Bioanalytical Techniques
SCMED3034 Histopathology and Haematology
SCMIC3003 Clinical Microbiology
Minor
SCBIO1001 Principles of Biology
SCCHM1002 Chemistry 2
SCCHM2001 Analytical Techniques
SCMOL2001 Biotechnology Laboratory Techniques

MICROBIOLOGY

Major
SCBIO1001 Principles of Biology
SCCHM1001 Chemistry 1
SCMIC2001 General Microbiology
SCMIC3002 Food Microbiology
SCMIC3003 Clinical Microbiology
SCMOL2001 Biotechnology Laboratory Techniques
SCMOL3020 Immunology
SCBCH3010 Advanced Bioanalytical Techniques
Minor
SCBIO1001 Principles of Biology
SCCHM1001 Chemistry 1
SCMIC2001 General Microbiology
SCMOL2001 Biotechnology Laboratory Techniques

Course Rules

- The Bachelor of Science course requires three years of full-time study or equivalent part-time study.
- Students must complete all core units, plus either:
  -one major sequence (8 x 15cp units) and one minor sequence (4 x 15 cp units), or
  -a double major sequences (14 x 15cp units) available in Brewing and Food Science, Chemistry and Analytical Science, Veterinary Bioscience, Wildlife and Ecosystem Conservation
- A maximum of ten 1000-level units and a minimum of four 3000-level units are required
- The Co-op Placement unit can be completed as 2 x 30cp units at any time in the second and third year of study

Additional Information

This course structure applies to students commencing from 2025. Students who commenced prior to 2025 should refer to the continuing enrolments page.

Course Coordinator

Associate Professor David Piedrafita

E: david.piedrafita@federation.edu.au

P: +61 3 5122 6205

TEQSA have advised that, in accordance with B1.1.3 of Higher Education Standards Framework (Threshold Standards) 2021 all Higher Education Providers are required to show their TEQSA Provider number and Provider Category on all relevant public material. ITS have ensured that our website and email signature templates have been amended to ensure compliance and have provided a knowledge article to assist you to update your signatures. Marketing are working to update the brand library and all social media accounts.

Glossary

Semester: designated teaching period.
PR: Pre-requisite, a unit/s that must be completed prior to undertaking another unit.
CO: Co-requisite, a unit/s that must be completed simultaneously, or prior to, undertaking another unit.
EX: Exclusion, a unit/s that may not be taken.