THE UNIVERSITY OF SYDNEY

How to plan your Science degree

Science sample degree plans 2023

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This document is intended to be used as a guide only, as sample plans are indicative. All students must refer to the Science Handbook for details such as course resolutions, and to the University's coursework policy and rules. While the information provided in this document is considered to be true and correct at the date of publication, changes to circumstances after the time of publication may impact on the accuracy of the information. The University strives to keep the information in this document up to date, and any errors in the information that are brought to our attention will be corrected as soon as possible. The University reserves the right to change without notice any information stored on this document at any time. To check the Science handbook and coursework policy, visit: https://www.sydney.edu.au/handbooks/science.html

Bachelor of Science - STREAM DEGREE SAMPLES

Bachelor of Science/Bachelor of Advanced Studies (Animal and Veterinary Bioscience)

Year	Semester	Units of study				
1	1	Chemistry 1A	Animals and Us	Introduction to Statistical Methods	Major	
	2	From Molecules to Ecosystems	Animal Management	Elective	Major	
2	1	Animal Structure and Function	Animal Energetics and Homeostasis	Applied Statistical Methods	Major	Farm Placement
	2	Animal Nutrition	Australian Wildlife Biology or Animal Farming Systems ^ or Genetics and Genomics	OLE	Major	Industry or Business Placement
3	1	Animal Reproduction	Science Interdisciplinary Project	Elective	Major	Research Experience Placement
	2	Animal Behaviour and Welfare Science	Animal Technologies	Elective	Major	Elective Placement
4	1	Advanced coursework*	Advanced coursework*	Professional Development	Major	
	2	Applied Life Sciences Project		Advanced coursework*	Major	

^ This unit runs in Semester 1

* Selective Advance coursework Sem 1: Applied Livestock Systems; Data and Technology for the Life Sciences; Science Communication; Experimental Design and Data Analysis; Sem 2: Diary Production and Industry; ONE Health; Ethics in Science;

Bachelor of Science/Bachelor of Advanced Studies (Health) - 2nd Major: Human Movement; Also available as Bachelor of Science (Health)

Year	Semester	Units of study			
1	1	Introduction to Health and Health Care	Human Biology or Life and Evolution or From Molecules to Ecosystems^	Recommended core: Foundations of Data Science	**Essential Musculoskeletal Human Anatomy**
	2	Society and Health	Psychology 1002	Recommended core: Sydney Science 2050: Towards the Future	Essential Musculoskeletal Human Anatomy
2	1	Introduction to research methods in health	OLE	Elective	Body Systems and Human Performance
	2	Innovations in eHealth	Elective	Muscle Adaptations to Use and Disuse	Human Neuroscience in Health and Disease
3	1	Research unit *	Disciplinary project unit***	Exercise Responses and Programming	Motor Control and Learning
	2	Interdisciplinary experience unit **	Selective unit ****	Anatomical Analysis of Exercise or Industry and Community Project	Elective
4	1	Project	Project	Advanced coursework	Advanced coursework
	2	Project	Project	Advanced coursework	Advanced coursework

^Offered in Semester 2

* Research units: Sem1: Quantitative Research Methods in Health; Sem 2: Evidence Based Health Care; Qualitative Research Methods in Health

** Interdisciplinary project units: Sem 1: Health Ethics and the Law; Sem 2: International Health; Sydney Health Students Abroad; Industry and Community Project; Science Interdisciplinary Project

*** Disciplinary Project units: Sem 1: Rural Health; Health Promotion: Principles and Practice; Sem 2: Health Service Strategy and Policy;

**** Selective units: Sem 1: Quantitative Research Methods in Health; Health, Ethics, and the Law; Rural Health; Mental Health Rehabilitation; Health Promotion: Principles and Practice Sem 2: Evidence Based Health Care; Health and Indigenous Populations; Health Service Strategy and Policy;; International Health; Sydney Health Students Abroad; Individual and Societal Ageing

Bachelor of Science/Bachelor of Advanced Studies (Medical Science); Also available as Bachelor of Science (Medical Science)

Year	Semester	Units of study			
1	1	Human Biology	Chemistry 1A	Recommended core: Foundations of Data Science	Major
	2	From Molecules to Ecosystems	OLE	Recommended core: Sydney Science 2050: Towards the Future	Major
2	1	Key Concepts in Physiology	Biochemistry and Molecular Biology	Foundations of Pharmacology	Major
	2	Human Anatomy and Histology	Microbes, Infection and Immunity	Elective	Major
3	1	Medical Science selective units*	Medical Science selective units*	Elective	Major
	2	Medical Science Interdisciplinary Project	Medical Science selective units*	Elective	Major
4	1	Advanced coursework	Advanced coursework	Advanced coursework	Major
	2	Project	Project	Advanced coursework	Major

* Medical Science selective units: Sem 1: Cancer; Interrogating Biomedical and Health Data; Musculoskeletal Anatomy; Visceral Anatomy; Gene and Genome Regulation; Protein Function and Engineering; Pathogenesis of Human Disease 1; Molecular and Cellular Immunology; Contemporary Medical Challenges; Microbes in Health and Disease; Functional Neuroanatomy; Neural Information Processing; Toxicology; Drug
Design and Development; Cellular Physiology; Systems Physiology; Virology; Sem 2: Diagnostic and Biomarkers; Cranial and Cervical Anatomy; Functional Systems Histology; Anatomical Imaging: From Micro to Macro; Biochemistry of Human Disease; Beyond the Genome; Pathogenesis of Human Disease 2; Cells and Development: Theory;
Molecular and Cellular Immunology; Immunology in Human Disease; Infectious Diseases; Cellular and Developmental Neuroscience; Integrative Neuroscience; Neuropharmacology; Frontiers in Physiology; Medical and Applied Virology; Science Interdisciplinary Project

Bachelor of Science/Bachelor of Advanced Studies (Taronga Wildlife Conservation)

Year	Semester	Units of study			
1	1	Life and Evolution	Animals and Us	Introduction to Statistical Methods	Major
	2	From Molecules to Ecosystems	OLE	Elective	Major
2	1	Applied Statistical Methods	Elective	Elective	Major
	2	Biology Experimental Design and Analysis	Ecology and Conversation	Australian Wildlife Biology	Major
3	1	Taronga Project	Wildlife Conservation	Elective	Major
	2	Taronga Interdisciplinary Project or Science Interdisciplinary Project	Ecology	Elective	Major
4	1	Wildlife Management (WPZ*)	Taronga Conservation Project: Applied Biology		Major
	2	Wildlife Health and Welfare^	Taronga Conservation Project: Human Dimensions		Major

*This unit takes place at Western Plains Zoo, Dubbo in Intensive February

^Offered in Intensive July

Bachelor of Science - DOUBLE DEGREES SAMPLES

Bachelor of Science/Doctor of Dental Medicine

(Refer to B Science programs and majors

Year	Semester	Units of study			
1	1	Science Major	Science	OLE	Minor
	2	Science Major	Biology^	Maths	Minor
2	1	Science Major	Maths	Elective	Minor
	2	Science Major	Elective	Elective	Minor
3#	1	Science Major	Science Major	Elective	Minor
	2	Science Major	Science Major	Elective	Minor
4-7	1	Doctor of Dental Medicine			
	2				

^ Biology unit: Sem 1: Life and Evolution; Human Biology Sem2: From Molecules to Ecosystems;

All students must undertake a zero-credit point 5-day Observational Elective Placement during their undergraduate degree (Dentistry Elective)

Bachelor of Science/Doctor of Medicine

(Refer to B Science programs and majors)

Year	Semester	Units of study			
1	1	Science Major	Science	OLE	Minor
	2	Science Major	From Molecules to Ecosystems	Maths	Minor
2	1	Science Major	Maths	Key Concepts in Physiology	Minor
	2	Science Major	Elective	Fundamentals of Human Anatomy	Minor
3#	1	Science Major	Science Major	Elective	Minor
	2	Science Major	Science Major	Elective	Minor
4-7	1	Doctor of Medicine			
	2				

All students must undertake a zero credit point 5-day Observational Elective Placement during their undergraduate degree (Observational Elective)

Bachelor of Science (Medical Science)/Doctor of Medicine

Year	Semester	Units of study			
1	1	Human Biology	Chemistry 1A	Recommended core: Foundations of Data Science	Minor
	2	From Molecules to Ecosystems	OLE	Recommended core: Sydney Science 2050: Towards the Future	Minor
2	1	Key Concepts in Physiology	Biochemistry and Molecular Biology	Foundations of Pharmacology	Minor
	2	Human Anatomy and Histology	Microbes, Infection and Immunity	Elective	Minor
3#	1	Medical Science selective units*	Medical Science selective units*	Elective	Minor
	2	Medical Science Interdisciplinary Project	Medical Science selective units*	Elective	Minor
4-7	1	Doctor of Medicine			
	2				

All students must undertake a zero credit point 5-day Observational Elective Placement during their undergraduate degree (Observational Elective)

* Medical Science selective units: Sem 1: Cancer; Interrogating Biomedical and Health Data; Musculoskeletal Anatomy; Visceral Anatomy; Gene and Genome Regulation; Protein Function and Engineering; Pathogenesis of Human Disease 1: Molecular and Cellular Immunology; ; Contemporary Medical Challenges; Microbes in Health and Disease; ; Functional Neuroanatomy; Neural Information Processing; Toxicology; Drug Design and Development; Cellular Physiology; Systems Physiology Virology; Sem 2: Diagnostic and Biomarkers; Cranial and Cervical Anatomy; Functional Systems Histology; Anatomical Imaging: From Micro to Macro; ; Biochemistry of Human Disease; Beyond the Genome; Pathogenesis of Human Disease 2; Cells and Development: Theory; Molecular and Cellular Immunology; Immunology in Human Disease; Infectious Diseases ; Frontiers in Physiology; Systems Physiology; Medical and Applied Virology; Science Interdisciplinary Project

Bachelor of Science/Master of Mathematical Sciences; Mathematical Sciences Program, Data Science

Year	Semester	Units of study			
1	1	Advanced Statistics and Linear Algebra	Calculus of one variable and Multivariable Calculus and Modelling	OLE	Minor
	2	Informatics: Data and Computation	Elective/ Dalyell	Science	Minor
2	1	Data Science: Big Data and Data Diversity	Program selective#	Elective	Minor
	2	Data Analytics: Learning from Data	Data Selective^	Elective	Minor
3	1	Data Science Capstone	Program selective*	Elective/ Dalyell	Minor
	2	Data Methodology^^, Data Application** or interdisciplinary project selective unit	Data Methodology^^ unit	Elective	Minor
4^^	1	Coursework	Coursework	Coursework	Coursework
	2	Coursework	Coursework	Coursework	Coursework
5	1	Research Project			

Program selective units (all advanced): Vector Calculus and Differential Equations or Linear and Abstract Algebra or Probability and Statistical Models

^ Data selective units: Sem 1: Data Structures and Algorithms; Computational Modelling; Probability and Estimation Theory; Probability and Statistical Models (Adv) Sem 2: Genetics and Genomics; Molecular Systems Biology;

* Program selective units: Sem 1: Metric Spaces; Rings, Fields and Galois Theory; Nonlinear ODEs with Applications; Differential Geometry Mathematical Computing; Complex analysis; Stochastic Processes; Applied Linear Models; Time Series; Statistical Consulting Sem 2: Projects in Financial Mathematics; Projects in Mathematics; ; Measure Theory and Fourier Analysis; Financial Derivatives; Langrangian and Hamiltonian Dynamics; PDEs and Waves; Statistical Inferences; Statistical Machine learning;
^^ Data methodology units: Sem 1: Algorithm Design; Introduction to Artificial Intelligence; Scalable Data Management; Stochastic Processes; Applied Linear Models; Time Series (Advanced); Statistical Consulting (Advanced) Sem 2: Human-in-the-Loop Data Analytics;; Statistical Inference;

**Data Application units: Sem 1: Statistics in the Natural Sciences; Interrogating Biomedical and Health Data; Sem 2: Environmental GIS; Applied Genomics; Beyond the Genome

Bachelor of Science/Master of Mathematical Sciences; Mathematical Sciences Program, Financial Mathematics and Statistics

Year	Semester	Units of study			
1	1	Calculus of one variable and Multivariable Calculus and Modelling	Elective/ Dalyell	OLE	Minor
	2	Linear Algebra and Statistical Thinking with Data	Informatics: Data and Computation	Science	Minor
2	1	Probability and Estimation Theory	Program selective#	Elective	Minor
	2	Optimisation and Financial Mathematics	Data Analytics: Learning from Data	Elective	Minor
3	1	Stochastic Processes	Program selective*	Elective	Minor
	2	Financial Derivatives	Projects in Financial Mathematics or Interdisciplinary project	Elective/ Dalyell	Minor
4^^	1	Coursework	Coursework	Coursework	Coursework
	2	Coursework	Coursework	Coursework	Coursework
5	1	Research Project			

Program selectives (all advanced): Vector Calculus and Differential Equations; Linear and Abstract Algebra

* Program selective units: Sem 1: Data Science Capstone: Metric Spaces; Rings, Fields and Galois Theory; Nonlinear ODEs with Applications; ; Fluid Dynamics; Mathematical Computing; Complex analysis; Applied Linear Models; Time Series; Statistical Consulting Sem 2: Projects in Financial Mathematics; Projects in Mathematics; Differential Geometry; Measure Theory and Fourier Analysis Langrangian and Hamiltonian Dynamics; PDEs and Waves; Statistical Inferences; Statistical Machine learning.

Bachelor of Science/Master of Mathematical Sciences; Mathematical Sciences Program, Mathematics

Year	Semester	Units of study			
1	1	Calculus of one variable and Multivariable Calculus and Modelling	Elective/ Dalyell	OLE	Minor
	2	Linear Algebra and Statistics	Informatics: Data and Computation	Science	Minor
2	1	Vector Calculus and Differential Equations	Linear and Abstract Algebra	Data Analytics: Learning from Data (Adv)(Sem 2)~ or Probability and Statistical Models (Adv)	Minor
	2	Analysis or Number Theory and Cryptography	Elective	Elective	Minor
3	1	Selective#	Interdisciplinary project	Elective/ Dalyell	Minor
	2	Selective#	Program selective^	Elective	Minor
4^^	1	Coursework	Coursework	Coursework	Coursework
	2	Coursework	Coursework	Coursework	Coursework
5	1	Research Project			

Selective units: Sem 1: Metric Spaces (Advanced); Rings, Fields and Galois Theory; Nonlinear ODEs with Applications; Algebra and Logic; Mathematical Computing; Fluid Dynamics; Complex Analysis Sem 2: Geometry and Topology; PDEs and Waves; Differential Geometry; Measure and Theory of Fourier Analysis; Langrangian and Hamiltonian Dynamics;

^ Program selective: Sem 1: Data Science capstone; ; Metric Spaces; Rings, Fields and Galois Theory; Nonlinear ODEs with Applications; Fluid Dynamics; Mathematical Computing; Complex analysis; Stochastic Processes; Applied Linear Models; Time Series; Statistical Consulting Sem 2: Projects in Financial Mathematics; Projects in Mathematics Differential Geometry; Measure Theory and Fourier Analysis; Financial Derivatives;
Langrangian and Hamiltonian Dynamics; PDEs and Waves; Statistical Inferences; Statistical Machine learning;

Bachelor of Science/Master of Mathematical Sciences; Mathematical Sciences Program, Statistics

Year	Semester	Units of study			
1	1	Calculus of one variable and Multivariable Calculus and Modelling	Elective/ Dalyell	OLE	Minor
	2	Linear Algebra and Statistics	Informatics: Data and Computation	Science	Minor
2	1	Probability and Estimation Theory	Vector Calculus and Differential Eqs or Linear and Abstract Algebra	Elective	Minor
	2	Data Analytics: Learning from Data	Program selective#	Elective	Minor
3	1	Applied Linear Models	Selective*	Elective	Minor
	2	Statistical Inference	Interdisciplinary project	Elective/ Dalyell	Minor
4^^	1	Coursework	Coursework	Coursework	Coursework
	2	Coursework	Coursework	Coursework	Coursework
5	1	Research Project			

Program selectives (all advanced): Semester 1: Vector Calculus and Differential Eqs; Linear Abstract Algebra; Semester 2: Analysis; Number Theory and Cryptography; Optimisation and Financial Mathematics

* 3000 level selective units: Stochastic Process; Time Series; Statistical Consulting

Bachelor of Science/Master of Nutrition and Dietetics

Year	Semester	Units of study			
1	1	Chemistry 1A	Human Biology	Recommended core: Linear Algebra and Calculus	Minor
	2	From Molecules to Ecosystems	Chemistry 1B	Recommended core: Foundations of Data Science	Minor
2	1	Biochemistry and Molecular Biology	Key Concepts in Physiology	OLE	Minor
	2	Proteins in Cells	Applied Physiology	Elective	Minor
3	1	Introductory Nutrition and Metabolism	Food Processing and Value Adding	Elective	Minor
	2	Metabolic Cybernetics	Selective^	Elective	Minor
4	1	Dietary Intake and Nutrition Assessment	Nutritional and Food Science	Methods in Nutrition Research	Dietetics Professional Studies
	2	Food Service Management	Community and Public Health Nutrition	Medical Nutrition	
5	1	Dietetics Training Placement			
	2	Nutrition Research Project			

^ Selective: Sem 1: Gene and Genome Regulation; Protein Function and Engineering; Science Interdisciplinary Project. Semester 2: Biochemistry of Human Disease; Science Interdisciplinary Project

Bachelor of Veterinary Biology/Doctor of Veterinary Medicine

Bachelor of Veterinary Biology					
Year	**Semester**	**Units of study**			
1	1	Life and Evolution	Chemistry 1A	Introduction to Statistical Methods	Elective
	2	From Molecules to Ecosystems	Chemistry 1B	Animal Management	Elective
2	1	Animal Structure and Function	Animal Energetics and Homeostasis	Elective	Elective
	2	Introductory Veterinary Pathogenesis	Animal Nutrition	Genetics and Genomics	Elective

Candidates who successfully complete the progression requirements enrol in the units of study for the Doctor of Veterinary Medicine degree.

Doctor of Veterinary Medicine							
Year	**Semester**	**Units of study**					
3~	1	The Veterinary Professional 1	Professional Skills 1A	Research and Enquiry 1A	Foundations of Veterinary Science A		
	2	Animal Management Systems 1	Professional Skills 1B	Research and Enquiry 1B	Foundations of Veterinary Science B		
4^	1	The Veterinary Professional 2	Professional Skills 2A	Research and Enquiry 2A	Principals of Animal Disease A		
	2	Animal Management Systems 2	Professional Skills 2B	Research and Enquiry 2B	Principals of Animal Disease B		
5^^	1	Veterinary Public Practice	Clinical Foundations	Small Animal Practice A	Livestock Practice A	Equine Practice A	Exotic and Wildlife Practice	Research and Enquiry 3A
	2	Veterinary Practice Management	Small Animal Practice B	Livestock Practice B	Equine Practice B	Intensive Animal Practice	Research and Enquiry 3B	
6	1	Intramural and Extramural Rotations#					
	2						

~ Placement units: Horse Industry Placement; Dairy Cattle Industry Placement; Beef Cattle Industry Placement; Sheep Industry Placement; Intensive Animal Industry Placement; Industry Placement Elective Experience 1, 2 and 3

^ Placement units: Preparatory Clinical Placement 1; Preparatory Clinical Placement 2

^^ Placement units: Abattoir Placement; Small Animal Desexing Clinic

Placement units: Small Animal Clinics A; Small Animal Clinics B; Small Animal Clinics C; Small Animal Clinics D; Large Animal Clinics A; Large Animal Clinics B; Lab Investigations of Clinical Disease; Public, Industry or Community Placement; Extramural Placement 1; Extramural Placement 2; Extramural Placement 3; Extramural Placement 4

Science - SINGLE DEGREE SAMPLES

Bachelor of Liberal Arts and Science

(Refer to B Science and B Arts for the list of majors available)

Year	Semester	Units of study			
1	1	Major	Elective	LS: Analytical Thinking	Sequence
	2	Major	Elective	LS: Writing and Rhetoric: Academic Essays	Sequence
2	1	Major	Elective	LS: elective#	Sequence
	2	Major	Elective	LS: elective#	Sequence
3	1	Major	Major	LS Ethics^	Sequence
	2	Major	Major	LS: elective#	Sequence

^ Ethics units offered at all levels. Units include: Sem 1: Bioethics; Reality, Ethics and Beauty; Practical Ethics; Sem 2: Science, Ethics and Society; Moral Psychology

Elective unit disciplines cover: analytical thinking; communication; ethics; culture, society and global citizenship; scientific enquiry; digital literacy

Bachelor of Liberal Arts and Science (Extended)

(Refer to B Science and B Arts for the list of majors available)

Year	Semester	Units of study			
1		Power of Number A	Indigenous Literacies in Academic Contexts A	Sydney Science 2050: Towards the Future	
		Power of Number B	Indigenous Literacies in Academic Contexts B	OLE	
2	1	Major	Elective	LS: Analytical Thinking	Sequence
	2	Major	Elective	LS: Writing and Rhetoric: Academic Essays	Sequence
3	1	Major	Elective	LS: elective#	Sequence
	2	Major	Elective	LS: elective#	Sequence
4	1	Major	Major	LS Ethics^	Sequence
	2	Major	Major	Cultural Capstone unit	Sequence

^ Ethics units offered at all levels. Units include: Sem 1: Bioethics; Reality, Ethics and Beauty; Practical Ethics; Sem 2: Science, Ethics and Society; Moral Psychology

Elective unit disciplines cover: analytical thinking; communication; ethics; culture, society and global citizenship; scientific enquiry; digital literacy

Bachelor of Psychology

Year	Semester	Units of study			
1	1	Psychology 1001	Mathematics and Data Selective units #	Elective	Minor
	2	Psychology 1002	Elective	Elective	Minor
2	1	Statistics and Research Methods for Psychology	Brain and Behaviour Psychology	Elective	Minor
	2	Perception, Cognition and Intelligence	Personality and Social Psychology	Elective	Minor
3	1	Psychology selective^	Additional Psychology unit*	Elective	Minor
	2	Psychology selective^	Psychology Interdisciplinary Project	Advanced Statistics for Psychology	Minor
4	1	Honours Research Project A	Advanced Psychometrics	Advanced Psychology Seminar A	Advanced Psychology Seminar B
	2	Honours Research Project B	Honours Research Project C	Honours Research Project D	Foundations of Professional Psychology

Mathematics and Data selective units: Foundations of Data Science; Statistical Thinking with Data; Calculus of One Variable; Multivariate Calculus and Modelling; Applications of Calculus; Mathematical Modelling; Linear Algebra; Discrete Mathematics; Statistical Thinking with Data; Interrogating Data

^ Third year selective units: Sem 1: Learning and Behaviour; Cognitive Psychology, Personality and Psychological Assessment; Social Psychology; Mental Health Conditions; Sem 2: Perceptual Systems; Behavioural and Cognitive Neuroscience; Developmental Psychology; Applied Psychology; Psychology and Psychiatry: History and Phil

* As per the third year selectives list plus: Health Psychology; Applied Psychology in the Workplace; Coaching Skills for Work and Life; Positive Psychology, Resilience and Happiness

Bachelor of Science (Extended)

Year	Semester	Units of study			
1	1	Power of Number A	Indigenous Literacies in Academic Contexts A	Sydney Science 2050: Towards the Future	
	2	Power of Number B	Indigenous Literacies in Academic Contexts A	OLE	
2	1	Major	Elective	Elective	Major
	2	Major	Recommended core: Foundations of Data Science	Elective	Major
3	1	Major	Elective	Elective	Major
	2	Major	Elective	Elective	Major
4	1	Major	Major	Elective	Major
	2	Major	Major	Cultural Capstone unit	Major

Bachelor of Science – PROGRAM AND MAJOR DEGREE SAMPLES

Bachelor of Science/Bachelor of Advanced Studies – available with an additional year Bachelor of Science/Bachelor of Advanced Studies (ADVANCED) – available with completion of advanced coded units.

Bachelor of Science; Agroecosystems program (Animal Production embedded major)

Year	Semester	Units of study			
1	1	Life and Evolution or ~~Concepts of~~ Animal Management (s2)	OLE	Recommended core: Linear Algebra and Calculus	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Foundations of Data Science	Major 2/Minor
2	1	Plant Management and Agroecosystems	Soil & Water: Earth's Life Support Systems	Elective	Major 2/Minor
	2	Animal Nutrition	Genetics and Genomics	Elective	Major 2/Minor
3	1	Selective^	Selective^	Major 2/Elective	Major 2/Minor
	2	Animal Behaviour and Welfare Science	Production Systems Analysis or Interdisciplinary Project	Major 2/Elective	Major 2/Minor

^ Selective units: Sem 1: Animal Reproduction Sem 2: Aquaculture and Poultry Production;

Bachelor of Science; Agroecosystems program (Plant Production embedded major)

Year	Semester	Units of study			
1	1	Life and Evolution	OLE	Recommended core: Linear Algebra and Calculus	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Foundations of Data Science	Major 2/Minor
2	1	Plant Management and Agroecosystems	Soil & Water: Earth's Life Support System	Elective	Major 2/Minor
	2	Plants and Environment	Genetics and Genomics	Elective	Major 2/Minor
3	1	Plant Protection	Agroecosystems in Developing Countries or Production Horticulture or Applied Plant Function	Major 2/Elective	Major 2/Minor
	2	Sustainable Plant Production	Environmental GIS or interdisciplinary Project	Major 2/Elective	Major 2/Minor

Bachelor of Science; Agroecosystems program (Soil Science and Hydrology embedded major)

Year	Semester	Units of study			
1	1	Chemistry 1A or Global Challenges: Food, Water, Climate^ or Earth, Environment and Society	OLE	Recommended core: Linear Algebra and Calculus	Major 2/Minor
	2	From Molecules to Ecosystems or Life and Evolution*	Elective	Recommended core: Foundations of Data Science	Major 2/Minor
2	1	Soil and Water: Life's Support Systems	Plant Management and Agroecosystems	Elective	Major 2/Minor
	2	Earth Surface Processes	Genetics and Genomics	Elective	Major 2/Minor
3	1	Statistics in the Natural Sciences or Science Interdisciplinary Project	Major 2/Elective	Major 2/Elective	Major 2/Minor
	2	Hydrological Modelling and Monitoring	Protecting the Soil Resource	Environmental GIS	Major 2/Minor

*Semester 1 ^Semester 2

Bachelor of Science; Anatomy and Histology major

Year	Semester	Units of study			
1	1	Human Biology	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	Chemistry 1A	Elective	Recommended core: Sydney Science 2050: Towards the Future	Major 2/Minor
2	1	Principles of Histology	Elective	Elective	Major 2/Minor
	2	Concepts in Neuroanatomy	Elective	Elective	Major 2/Minor
3	1	Interdisciplinary project	Major selective*	Major 2/Elective	Major 2/Minor
	2	Functional Systems Histology	Major selective*	Major 2/Elective	Major 2/Minor

* Sem 1: Visceral Anatomy; Musculoskeletal Anatomy. Sem 2: Cranial and Cervical Anatomy

Bachelor of Science; Animal Health, Disease and Welfare major

Year	Semester	Units of study			
1	1	Life and Evolution	OLE	Recommended core: Linear Algebra and Calculus	Major 2/Minor
	2	From Molecules to Ecosystem	Elective	Recommended core: Foundations of Data Science	Major 2/Minor
2	1	Immunobiology or Microbiology or Microbes, Infection and Immunity (s2)	Elective	Elective	Major 2/Minor
	2	Introductory Veterinary Pathogenesis	Elective	Elective	Major 2/Minor
3	1	Agents of Disease	Animal Health and Disease	Major 2/Elective	Major 2/Minor
	2	Animal Behaviour and Welfare Science	Laboratory Disease Investigations or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

Bachelor of Science; Animal Production major

Year	Semester	Units of study			
1	1	Life and Evolution or Animal Management (s2)	OLE	Recommended core: Linear Algebra and Calculus	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Foundations of Data Science	Major 2/Minor
2	1	Genetics and Genomics	Elective	Elective	Major 2/Minor
	2	Animal Nutrition	Elective	Elective	Major 2/Minor
3	1	Major selective*	Major 2/Elective	Major 2/Elective	Major 2/Minor
	2	Animal Behaviour and Welfare Science	Production Systems Analysis or Science Interdisciplinary Project	Major selective*	Major 2/Minor

Sem 1: Animal Reproduction; Livestock Production Systems. Sem 2: Aquaculture; Intensive Animal Industries; New and Emerging Tech in Animal Science

Bachelor of Science; Applied Medical Science major

Year	Semester	Units of study			
1	1	Chemistry 1A	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Sydney Science 2050: Towards the Future	Major 2/Minor
2	1	Biochemistry and Molecular Biology	Elective	Elective	Major 2/Minor
	2	Microbes, Infection and Immunity	Elective	Elective	Major 2/Minor
3	1	Cancer	Interrogating Biomedical and Health Data	Major 2/Elective	Major 2/Minor
	2	Diagnostics and Biomarkers	Clinical Science or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

Bachelor of Science; Biochemistry and Molecular Biology Major

Year	Semester	Units of study			
1	1	Chemistry 1A	OLE	Recommended core: Linear Algebra and Calculus	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Foundations of Data Science	Major 2/Minor
2	1	Biochemistry and Molecular Biology	Elective	Elective	Major 2/Minor
	2	Proteins in Cells	Elective	Elective	Major 2/Minor
3	1	Gene and Genome Regulation	Protein Function and Engineering	Major 2/Elective	Major 2/Minor
	2	Biochemistry and Molecular Biology Project or Science Interdisciplinary Project or Synthetic biology: the iGEM Competition (Adv)	Biochemistry of Human Disease or Beyond the Genome or Drug Design and Development#	Major 2/Elective	Major 2/Minor

Drug Design and Development is offered in Semester 1 (not as represented in table)

Bachelor of Science; Biology Major

Year	Semester	Units of study			
1	1	Life and Evolution or Human Biology	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Sydney Science 2050: Towards the Future	Major 2/Minor
2	1	Botany or Zoology	Breadth units*	Elective	Major 2/Minor
	2	Biology and Experimental Design and Analysis	Elective	Elective	Major 2/Minor
3	1	Elective	Selective units~	Major 2/Elective	Major 2/Minor
	2	Biology or Science Interdisciplinary Project	Field units^	Major 2/Elective	Major 2/Minor

* Breadth units: Sem 1: Zoology or Botany or Cell Biology or Immunobiology or Microbiology. Sem 2: Comparative Primate Anatomy or Ecology and Conservation or Australian Wildlife Biology or Biology of Insects or Plants and Environment or Genetics and Genomics

^ Field units: Sem 1: Tropical Wildlife Biology or Coral Reef Biology Sem 2: Ecology or Marine Field Ecology or Terrestrial Field Ecology

~ Selective units: Sem 1: Terrestrial Plant Ecosystem Management or Evolutionary Biology or Gene and Technology Genomics or Developmental Biology or Applied Plant Function or Evolution of the Human Biota or Animal Behaviour or Sem 2: Marine Biology or Insect and Human Interactions or Animal Ecological Physiology

Plant Science minor

Year	Semester	Units of study
1	1	Life and Evolution
	2	From Molecules to Ecosystems
2	1	Botany
	2	Plants and Environment
3	1	Applied Plant Function
	2	Plant Ecosystem Management or Plant Protection

Bachelor of Science; Cell and Developmental Biology major

Year	Semester	Units of study			
1	1	Chemistry 1A or Life and Evolution	OLE	Recommended core: Linear Algebra and Calculus	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Foundations of Data Science	Major 2/Minor
2	1	Cell Biology	Elective	Elective	Major 2/Minor
	2	Proteins in Cells or Genetics and Genomics	Elective	Elective	Major 2/Minor
3	1	Developmental Biology	Selective*	Major 2/Elective	Major 2/Minor
	2	Selective*	Biology or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

*Sem 1: Systems Physiology. Sem 2: Beyond the Genome or Cells and Development Theory

Bachelor of Science; Chemistry major

Year	Semester	Units of study			
1	1	Chemistry 1A	OLE	Recommended core: Calculus of One Variable and Multivariable Calculus	Major 2/Minor
	2	Chemistry 1B	Elective	Recommended core: Linear Algebra and Statistical Thinking with Data	Major 2/Minor
2	1	Molecular Stability and Reactivity	Elective	Elective	Major 2/Minor
	2	Chemistry selective**	Elective	Elective	Major 2/Minor
3	1	Chemistry selective*	Chemistry selective*	Major 2/Elective	Major 2/Minor
	2	Chemistry selective*	Chemistry or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

**Chemistry selective units of study: Sustainable Chemical Manufacture (Sem 1) or Chemistry of Biological Molecules or Chemical Physics

* Chemistry selective units of study: Sem 1: Synthetic Chemistry; Materials Chemistry; Environmental and Analytical Chemistry; Sem 2: Chemical Biology; Molecular Self Assembly; Computational Chemistry

Bachelor of Science; Computer Science major

Year	Semester	Units of study			
1	1	Introduction to Programming	OLE	Recommended core: Calculus of One Variable and Statistical Thinking with Data	Major 2/Minor
	2	Object-Oriented Programming	Elective	Recommended core: Discrete Mathematics for Computation and Linear Algebra	Major 2/Minor
2	1	Data Structures & Algorithms	Systems Programming	Elective	Major 2/Minor
	2	Models of Computation	Elective	Elective	Major 2/Minor
3	1	Algorithm Design	Computer Science selective units*	Major 2/Elective	Major 2/Minor
	2	Computer Science Project or Science Interdisciplinary Project	Elective	Major 2/Elective	Major 2/Minor

* Computer Science selective units: Sem 1: Programming Languages and Paradigms; Distributed Systems; Introduction to Artificial Intelligence; Sem 2: Graphics and Multimedia; Operating Systems Internals; Discrete Optimization

Bachelor of Science; Data Science major

Year	Semester	Units of study			
1	1	Foundations of Data Science	OLE	Elective	Major 2/Minor
	2	Informatics: Data and Computation	Science	Recommended core: Calculus and Linear Algebra	Major 2/Minor
2	1	Data Science: Big Data and Data Diversity	Elective	Elective	Major 2/Minor
	2	Data Analytics: Learning from Data	Data Selective^	Elective	Major 2/Minor
3	1	Data methodology unit#	Data Science Capstone	Major 2/Elective	Major 2/Minor
	2	Data methodology# or application** or interdisciplinary project selective unit	Elective	Major 2/Elective	Major 2/Minor

^ Data selective: Sem 1: Data Structures and Algorithms; Computational Modelling; Probability and Estimation Theory Sem 2: Genetics and Genomics; Molecular Systems Biology;

Data methodology: Sem 1: Algorithm Design; Introduction to Artificial Intelligence; Scalable Data Management; Stochastic Processes; Applied Linear Models; Time Series (Advanced); Statistical Consulting (Advanced) Sem 2: Human-in-the-Loop Data Analytics;; Statistical Inference;

**Application unit: Sem 1: Statistics in the Natural Sciences; Interrogating Biomedical and Health Data; Sem 2: Environmental GIS; Applied Genomics; Beyond the Genome

Bachelor of Science; Ecology and Evolutionary Biology major

Year	Semester	Units of study			
1	1	Life and Evolution	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules and Ecosystems	Elective	Recommended core: Linear Algebra and Calculus	Major 2/Minor
2	1	Elective	Elective	Elective	Major 2/Minor
	2	Biology Experimental Design and Analysis	Ecology and Conservation	Elective	Major 2/Minor
3	1	Evolutionary Biology	Selective unit*	Major 2/Elective	Major 2/Minor
	2	Ecology	Biology or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

* Selective: Sem 1: Wildlife Conservation; Animal Behaviour Sem 2: Marine Field Ecology; Terrestrial Field Ecology; Evolution of Australian Biota Animal Ecological Physiology;

Wildlife Conservation minor

Year	Semester	Units of study	
1	1	Life and Evolution	
	2	From Molecules to Ecosystems	
2	1		
	2	Biology Experimental Design and Analysis;	Ecology and Conservation
3	1	Wildlife Conservation	
	2	Ecology	

Bachelor of Science; Environmental Science program

Year	Semester	Units of study			
1	1	Chemistry 1A	OLE	Recommended core: Linear Algebra and Calculus	Major 2/Minor
	2	Global Challenges: Food, Water, Climate or Earth, Environment and Society (s1)	Elective	Recommended core: Sydney Science 2050: Towards the Future	Major 2/Minor
2	1	Environmental Monitoring	Soil and Water: Earth's Life Support Systems	Elective	Major 2/Minor
	2	Australian Wildlife Biology or Plants and Environment or Biology Experimental Design and Analysis or Applied Statistical Methods (s1)	Earth Surface Processes	Elective	Major 2/Minor
3	1	Selective	Major 2/Elective	Major 2/Elective	Major 2/Minor
	2	Environmental GIS	Protecting the Soil Resource or Science Interdisciplinary Project	Selective^	Major 2/Minor

^ Selective: Sem 1: Wildlife Conservation, or Science Interdisciplinary Project. Sem 2: Hydrological Modelling and Monitoring; Terrestrial Plant Ecology; Plant Ecosystem Management, Protecting the soil resource, Science Interdisciplinary Project

Bachelor of Science; Environmental Studies major

Year	Semester	Units of study			
1	1	Earth, Environment and Society	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	Selective#	Elective	Recommended core: Linear Algebra and Calculus	Major 2/Minor
2	1	Environmental and Resource Management	Elective	Elective	Major 2/Minor
	2	Environmental Governance and Assessment	Elective	Elective	Major 2/Minor
3	1	Environmental Law and Ethics	Selective^ or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor
	2	Environmental Impact Assessment Project	Selective^	Major 2/Elective	Major 2/Minor

1000 level selective units: Sem 1: Life and Evolution; Principles of Economics From Molecules to Ecosystems; Chemistry 1A; Global Challenges: Food, Water, Climate; Introductory Geography;

^ 3000 level selective units: Sem 1: Urban Citizenship and Sustainability Sem 2: Energy and the Environment; GIS in Coastal Management; Asia and Pacific Field School;; Global Change, Sustainable Livelihoods

Bachelor of Science; Financial Mathematics and Statistics major

Year	Semester	Units of study			
1	1	Calculus (one Variable and one Multivariable)	Science	OLE	Major 2/Minor
	2	Linear Algebra and Statistics or Data Science	Science	Elective	Major 2/Minor
2	1	Probability and Estimation Theory	Elective	Elective	Major 2/Minor
	2	Optimisation and Financial Mathematics	Data Analytics: Learning from Data	Elective	Major 2/Minor
3	1	Stochastic Processes	Elective	Major 2/Elective	Major 2/Minor
	2	Financial Derivatives	Projects in Financial Mathematics or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

Bachelor of Science; Food Science major

Year	Semester	Units of study			
1	1	Chemistry 1A	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Linear Algebra and Calculus	Major 2/Minor
2	1	Biochemistry and Molecular Biology *	Elective	Elective	Major 2/Minor
	2	Principles of Food Science	Elective	Elective	Major 2/Minor
3	1	Food Processing and Value Adding	Chemistry and Biochemistry of Foods	Major 2/Elective	Major 2/Minor
	2	Food Product Development or Science Interdisciplinary Project	Food Quality and Safety	Major 2/Elective	Major 2/Minor

Bachelor of Science; Genetics and Genomics major

Year	Semester	Units of study			
1	1	Chemistry 1A or Life and Evolution or Human Biology	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Linear Algebra and Calculus	Major 2/Minor
2	1	Biochemistry and Molecular Biology	Elective	Elective	Major 2/Minor
	2	Genetics and Genomics	Elective	Elective	Major 2/Minor
3	1	Gene Technology and Genomics	Evolutionary Biology or Beyond the Genome (Sem 2)	Major 2/Elective	Major 2/Minor
	2	Applied Genomics	Genomics or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

Bachelor of Science; Geography major

Year	Semester	Units of study			
1	1	Earth Environment and Society	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	Introductory Geography	Elective	Recommended core: Sydney Science 2050: Towards the Future	Major 2/Minor
2	1	Environmental and Resource Management	Elective	Elective	Major 2/Minor
	2	Selective^	Elective	Elective	Major 2/Minor
3	1	Selective *	Selective* or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor
	2	Integrated Geographical Practice	Selective* or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

^ 2000-level Selective units: Hazards, Climate Change and Disasters; Earth Surface Processes; The Geography of Cities and Regions (Sem 1)

* 3000-level Selective units: Sem 1: Environmental Law and Ethics; Coastal Environments and Processes; Environment, Sediment and Climate Change; Urban Citizenship and Sustainability; Sem 2: GIS for Land and Coastal Management; Global Change, Sustainable Livelihoods Asia and Pacific Field School

Bachelor of Science; Geology and Geophysics major

Year	Semester	Units of study			
1	1	Earth Environment and Society	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	Earth Science: Past and Future of our Planet	Elective	Recommended core: Linear Algebra and Calculus	Major 2/Minor
2	1	Volcanoes, Resources and Sustainability	Elective	Elective	Major 2/Minor
	2	Earth's History and the Biosphere	Elective	Elective	Major 2/Minor
3	1	Deep Mantle to Earth Surface Dynamics	Environment, Sediment and Climate Change	Major 2/Elective	Major 2/Minor
	2	Field Geology in the Digital Age*	Earth Systems Research Project or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

*Offered as July Intensive

Bachelor of Science; History and Philosophy of Science major

Year	Semester	Units of study			
1	1	Bioethics	OLE	Recommended core: Sydney Science 2050: Towards the Future	Major 2/Minor
	2	What is This Thing called Science?	Elective	Mathematics	Major 2/Minor
2	1	The Birth of Modern Science	Elective	Elective	Major 2/Minor
	2	Science, Ethics and Society	Elective	Elective	Major 2/Minor
3	1	Selective^	Selective^	Major 2/Elective	Major 2/Minor
	2	The Scientific Revolution	HPSC or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

^ Selective units: Sem 1: History and Philosophy of the Physical Sciences; Psychology and Psychiatry: History and Phil. Sem 2: History and Philosophy of the Biomedical Sciences.

Bachelor of Science; Immunology and Pathology major

Year	Semester	Units of study			
1	1	Chemistry 1A	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Sydney Science 2050: Towards the Future	Major 2/Minor
2	1	Immunobiology	Elective	Elective	Major 2/Minor
	2	Microbes, Infection and Immunity	Elective	Elective	Major 2/Minor
3	1	Molecular and Cellular Immunology	Pathogenesis of Human Disease 1	Major 2/Elective	Major 2/Minor
	2	Selective^	Immunopathology or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

^ Selective units: Pathogenesis of Human Disease 2; Immunology in Human Disease

Immunology minor

Year	Semester	Units of study
1	1	Chemistry 1A
	2	From Molecules to Ecosystems
2	1	Immunobiology
	2	Microbes, Infection and Immunity *
3	1	Molecular and Cellular Immunology
	2	Immunology in Human Disease
4	1	Chemistry 1A
	2	From Molecules to Ecosystems

*MIMI coded or MEDS coded units (MEDS coded units of study are only available to students in the Medical Science stream

Pathology minor

Year	Semester	Units of study
1	1	Chemistry 1A
	2	From Molecules to Ecosystems
2	1	Immunobiology
	2	Microbes, Infection and Immunity
3	1	Pathogenesis of Human Disease 1
	2	Pathogenesis of Human Disease 2

Bachelor of Science; Infectious Diseases major

Year	Semester	Units of study			
1	1	Chemistry 1A	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Sydney Science 2050: Towards the Future	Major 2/Minor
2	1	Biochemistry and Molecular Biology or Immunobiology or Microbiology	Elective	Elective	Major 2/Minor
	2	Microbes, Infection and Immunity	Elective	Elective	Major 2/Minor
3	1	Selective^	Selective^	Major 2/Elective	Major 2/Minor
	2	Infectious Diseases	Infectious Diseases or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

^ Selective units: Sem 1: Microbes in Health and Disease; Virology; Sem 2: Medical and Applied Virology

Virology minor

Year	Semester	Units of study
1	1	Chemistry 1A
	2	From Molecules to Ecosystems
2	1	Biochemistry and Molecular Biology or Immunobiology or Microbiology
	2	Microbes, Infection and Immunity
3	1	Virology
	2	Medical and Applied Virology
4	1	Chemistry 1A
	2	From Molecules to Ecosystems

Bachelor of Science; Life Sciences Program, Biochemistry And Molecular Biology

Year	Semester	Units of study			
1	1	Chemistry 1A	OLE	Recommended core: Linear Algebra and Calculus	Major 2/Minor
	2	From Molecules to Ecosystems	Chemistry 1B or Human Biology (Sem 1)	Recommended core: Foundations of Data Science	Major 2/Minor
2	1	Biochemistry and Molecular Biology	Program selective*	Elective	Major 2/Minor
	2	Proteins in Cells	Program selective*	Elective	Major 2/Minor
3	1	Gene and Genome Regulation	Protein Function and Engineering	Major 2/Elective	Major 2/Minor
	2	Biochemistry and Molecular Biology Project or Science Interdisciplinary Project	Biochemistry of Human Disease or Beyond the Genome or Drug Design and Development#	Major 2/Elective	Major 2/Minor

Drug Design and Development is offered in Semester 1 (not as represented in table)
*Program selective: Sem 1: Cell Biology; Microbiology; Molecular Systems Biology. Sem 2: Genetics and Genomics

Bachelor of Science; Life Sciences Program, Cell and Developmental Biology

Year	Semester	Units of study			
1	1	Chemistry 1A or Life and Evolution	OLE	Recommended core: Linear Algebra and Calculus	Major 2/Minor
	2	From Molecules to Ecosystems	Chemistry 1A or Chemistry 1B or Human Biology (Sem 1)	Recommended core: Foundations of Data Science	Major 2/Minor
2	1	Cell Biology	Program selective*	Elective	Major 2/Minor
	2	Proteins in Cells or Genetics and Genomics	Program selective*	Elective	Major 2/Minor
3	1	Developmental Biology	Selective#	Major 2/Elective	Major 2/Minor
	2	Selective#	Biology or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

#Sem 1: Systems Physiology. Sem 2: Beyond the Genome or Cells and Development Theory
*Program selective: Sem 1: Biochemistry and Molecular Biology; Microbiology; Molecular Systems Biology. Sem 2: Genetics and Genomics

Bachelor of Science; Life Sciences Program, Genetics and Genomics

Year	Semester	Units of study			
1	1	Chemistry 1A or Life and Evolution or Human Biology	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems	Chemistry 1A or Chemistry 1B or Human Biology (Sem 1)	Recommended core: Linear Algebra and Calculus	Major 2/Minor
2	1	Biochemistry and Molecular Biology	Program selective*	Program selective*	Major 2/Minor
	2	Genetics and Genomics	Elective	Elective	Major 2/Minor
3	1	Gene Technology and Genomics	Evolutionary Biology or Beyond the Genome (Sem 2)	Major 2/Elective	Major 2/Minor
	2	Applied Genomics	Genomics or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

*Program selective: Sem 1: Cell Biology; Microbiology; Molecular Systems Biology

Bachelor of Science; Life Sciences Program, Microbiology

Year	Semester	Units of study			
1	1	Life and Evolution or Chemistry 1A	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems	Chemistry 1A or Chemistry 1B or Human Biology (Sem 1)	Recommended core: Linear Algebra and Calculus	Major 2/Minor
2	1	Microbiology	Program selective*	Elective	Major 2/Minor
	2	Microbes, Infection and Immunity	Program selective*	Elective	Major 2/Minor
3	1	Microbes in Health and Disease	Virology	Major 2/Elective	Major 2/Minor
	2	Microbiology or Science Interdisciplinary Project	Microbiology in a Changing World	Major 2/Elective	Major 2/Minor

*Program selective: Sem 1: Biochemistry and Molecular Biology; Cell Biology; Microbiology; Molecular Systems Biology. Sem 2: Genetics and Genomics

Bachelor of Science; Life Sciences Program, Quantitative Life Sciences

Year	Semester	Units of study			
1	1	Mathematics#	OLE	Chemistry 1A or Chemistry 1B or Human Biology	Major 2/Minor
	2	From Molecules to Ecosystems	Science	Recommended core: Linear Algebra and Calculus	Major 2/Minor
2	1	Applied Statistical Methods or Molecular Systems Biology	Selective*	Program selective*	Major 2/Minor
	2	Selective*	Program selective*	Elective	Major 2/Minor
3	1	Statistics in the Natural Sciences	Specialisation unit^	Major 2/Elective	Major 2/Minor
	2	Quantitative Biology or Science Interdisciplinary Project	Elective	Major 2/Elective	Major 2/Minor

Mathematics units: Foundations of Data Science; Statistical Thinking with Data; Linear Algebra; Applications of Calculus; Mathematical Modelling; Introduction to Statistical Methods

*2000-level selectives: Biology Experimental Design and Analysis; Cell Biology; Data Analytics: Learning from Data; Applied Statistical Methods; Molecular Systems Biology.

^ Specialisation units: Sem 1: Interrogating Biomedical and Health Data; Gene Technology and Genomics; Statistics in the Natural Sciences. Sem 2: Beyond the Genome; Environmental GIS; Hydrological Modelling and Monitoring; Statistical Machine Learning; Applied Genomics;

**Program selective: Sem 1: Biochemistry and Molecular Biology; Cell Biology; Microbiology; Molecular Systems Biology. Sem 2: Genetics and Genomics

Bachelor of Science; Marine Science major

Year	Semester	Units of study			
1	1	Life and Evolution or Earth, Environment and Society	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems or Earth Science: Past and Future of our Planet	Elective	Recommended core: Linear Algebra and Calculus	Major 2/Minor
2	1	Ocean, Coasts and Climate Change	Elective	Elective	Major 2/Minor
	2	Biology Experimental Design and Analysis	Elective	Elective	Major 2/Minor
3	1	Coastal Environments and Processes	Marine Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor
	2	Marine Biology	Selective^	Major 2/Elective	Major 2/Minor

^ Selective units: GIS for Land and Costal Management; Marine Field Ecology; Coral Reef Biology (Sem 1); Aquaculture and Poultry Production; Science Interdisciplinary Project

Bachelor of Science; Mathematical Sciences Program, Data Science

Year	Semester	Units of study			
1	1	Advanced Statistics and Linear Algebra	Calculus of one variable and Multivariable Calculus and Modelling	Science	Minor
	2	Informatics: Data and Computation	Elective/ Dalyell	OLE	Minor
2	1	Data Science: Big Data and Data Diversity	Program selective#	Elective	Minor
	2	Data Analytics: Learning from Data	Data Selective^	Elective	Minor
3	1	Data Methods	Data Science Capstone	Elective/ Dalyell	Minor
	2	Data Application	Program selective*	Elective	Minor

Program selectives (all advanced): Vector Calculus and Differential Equations or Linear and Abstract Algebra or Probability and Statistical Models
^ Data selective: Data Structures and Algorithms; Computational Modelling; Genetics and Genomics; Molecular Systems Biology; Probability and Estimation Theory; Probability and Statistical Models (Adv)
* Program selectives: Projects in Financial Mathematics; Projects in Mathematics; Stochastic Processes; Financial Mathematics; Applied Linear Models; Statistical Inferences; Statistical Machine learning; Metric Spaces, …

Bachelor of Science; Mathematical Sciences Program, Financial Mathematics and Statistics

Year	Semester	Units of study			
1	1	Calculus of one variable and Multivariable Calculus and Modelling	Elective/ Dalyell	OLE	Minor
	2	Linear Algebra and Statistics	Informatics: Data and Computation	Science	Minor
2	1	Probability and Estimation Theory	Vector Calculus and Differential Eqs (Adv) or Linear and Abstract Algebra (Advanced)	Elective	Minor
	2	Optimisation and Financial Mathematics	Data Analytics: Learning from Data	Elective	Minor
3	1	Stochastic Processes	Program selective#	Elective	Minor
	2	Financial Derivatives	Projects in Financial Mathematics or Science Interdisciplinary Project	Elective/ Dalyell	Minor

Program selectives (all advanced): Data Science Capstone; Projects in Mathematics; Stochastic Processes; Financial Mathematics; Applied Linear Models; Statistical Inferences; Statistical Machine learning; Metric Spaces, …

Bachelor of Science; Mathematical Sciences Program, Mathematics

Year	Semester	Units of study			
1	1	Calculus of one variable and Multivariable Calculus and Modelling	Elective/ Dalyell	OLE	Minor
	2	Linear Algebra and Statistics	Informatics: Data and Computation	Science	Minor
2	1	Vector Calculus and Differential Equations	Linear and Abstract Algebra	Data Analytics: Learning from Data (Adv)~ or Probability and Statistical Models (Adv)	Minor
	2	Analysis or Number Theory and Cryptography	Elective	Elective	Minor
3	1	Selective#	Program selective^	Elective/ Dalyell	Minor
	2	Selective#	Projects in Mathematics or Science Interdisciplinary Project	Elective	Minor

~ Semester 2
# Selective units: Sem 1: Metric Spaces (Advanced); Rings, Fields and Galois Theory (Adv); Nonlinear ODEs with Applications; Algebra and Logic; Mathematical Computing; Fluid Dynamics (Advanced); Complex Analysis (Advanced). Sem 2: Geometry and Topology; PDEs and Waves; Differential Geometry (Advanced); Measure Theory and Fourier Analysis (Adv); Langrangian and Hamiltonian Dynamics (Adv)
^ Program selective: Data Science capstone; Projects in Financial Mathematics; Stochastic Processes; Financial Mathematics; Applied Linear Models; Statistical Inferences; Statistical Machine learning; Metric Spaces, …

Bachelor of Science; Mathematical Sciences Program, Statistics

Year	Semester	Units of study			
1	1	Calculus of one variable and Multivariable Calculus and Modelling	Elective/ Dalyell	OLE	Minor
	2	Linear Algebra and Statistics	Informatics: Data and Computation	Science	Minor
2	1	Probability and Estimation Theory	Vector Calculus and Differential Eqs (Adv) or Linear and Abstract Algebra (Advanced)	Elective	Minor
	2	Data Analytics: Learning from Data	Program selective#	Elective	Minor
3	1	Applied Linear Models	Selective*	Elective	Minor
	2	Statistical Inference	Statistical Machine Learning or Science Interdisciplinary Project	Elective/ Dalyell	Minor

Program selectives (all advanced) - Semester 1: Vector Calculus and Differential Equations; Linear Abstract Algebra; Semester 2: Analysis; Number Theory and Cryptography; Optimisation and Financial Mathematics
* 3000-level selective units: Stochastic Process; Time Series; Statistical Consulting

Bachelor of Science; Mathematics major

Year	Semester	Units of study			
1	1	Calculus of one variable and Multivariable Calculus and Modelling	Science	OLE	Major 2/Minor
	2	Linear Algebra and Statistical Thinking with Data or Discrete Mathematics	Science	Elective	Major 2/Minor
2	1	Vector Calculus and Differential Equations	Linear and Abstract Algebra	Elective	Major 2/Minor
	2	Analysis or Number Theory and Cryptography	Elective	Elective	Major 2/Minor
3	1	Selective^	Elective	Major 2/Elective	Major 2/Minor
	2	Selective^	Projects in Mathematics or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

^Selective units: Sem 1: Metric Spaces (Advanced); Rings, Fields and Galois Theory (Adv); Nonlinear ODEs with Applications; Algebra and Logic; Mathematical Computing; Fluid Dynamics (Advanced); Complex Analysis (Advanced). Sem 2: Geometry and Topology; PDEs and Waves; Differential Geometry (Advanced); Measure Theory and Fourier Analysis (Adv); Langrangian and Hamiltonian Dynamics (Adv)

Bachelor of Science; Medicinal Chemistry major

Year	Semester	Units of study			
1	1	Chemistry 1A	OLE	Recommended core: Calculus of One Variable and Multivariable Calculus	Major 2/Minor
	2	Chemistry 1B	Elective	Recommended core: Linear Algebra and Statistical Thinking with Data	Major 2/Minor
2	1	Molecular Stability and Reactivity	Foundations of Pharmacology	Elective	Major 2/Minor
	2	Elective	Elective	Elective	Major 2/Minor
3	1	Drug Design and Development	From Molecules to Therapeutics	Major 2/Elective	Major 2/Minor
	2	Medicinal Chemistry or Science Interdisciplinary Project	Chemical Biology or Synthetic Chemistry (Sem 1)	Major 2/Elective	Major 2/Minor

Bachelor of Science; Microbiology major

Year	Semester	Units of study			
1	1	Life and Evolution or Chemistry 1A	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Linear Algebra and Calculus	Major 2/Minor
2	1	Microbiology	Elective	Elective	Major 2/Minor
	2	Microbes, Infection and Immunity	Elective	Elective	Major 2/Minor
3	1	Microbes in Health and Disease	Virology	Major 2/Elective	Major 2/Minor
	2	Microbiology or Science Interdisciplinary Project	Microbiology in a Changing World	Major 2/Elective	Major 2/Minor

Bachelor of Science/Bachelor of Advanced Studies; Nanoscience and Nanotechnology program, Physics major (coursework pathway shown for year 4)

Year	Semester	Units of study			
1	1	Physics 1 or Physics 1A	Calculus of one variable and Multivariable Calculus and Modelling	OLE	Major 2
	2	Physics 1 (Techno logical) or Physics 1B	Linear Algebra and Statistical Thinking with Data	Elective	Major 2
2	1	Physics 2A	Vector Calculus and Differential Equations	Elective	Major 2
	2	Physics 2B	Introduction to Nanoscience	Elective	Major 2
3	1	Quantum, Statistical and Comp Physics	Physics or Science Interdisciplinary Project	Elective	Major 2
	2	Electrodynamics and Optics	Plasma and Astrophysics or Condensed Matter and Particle Physics (Sem1)	Elective	Major 2
4	1	Modern Nanoscience	Nano Selective List 1#	Nano Selective List 1# or 2^^	Major 2
	2	Applied Nano-technology Project		Nano Selective List 1#	Major 2

Nano selective List 1: Sem 1: Advanced Instrumentation for Nanotechnology; Nanomaterials in Medicine; Nanoscale Biomedical Diagnostics; Sem 2: Computational Nanotechnology; Nanotechnology in Chemical Engineering; Quantum Nanoscience.

^^ Nano selective List 2: Sem 1: Practitioner Physics; Science Communication; Experimental Design and Data Analysis; Ethics in Science. Sem 2: Neural Dynamics and Computation; Bayesian Data Inference and Machine Learning; Higher Education in STEM; Ethics in Science.

Bachelor of Science/Bachelor of Advanced Studies; Nanoscience and Nanotechnology program, Chemistry major (Honours/Research pathway shown for year 4)

Year	Semester	Units of study			
1	1	Chemistry 1A	Calculus of one variable and Multivariable Calculus and Modelling	OLE	Major 2
	2	Chemistry 1B	Linear Algebra and Statistical Thinking with Data	Elective	Major 2
2	1	Molecular Stability and Reactivity	Vector Calculus and Differential Equations	Elective	Major 2
	2	Chemistry selective*	Introduction to Nanoscience	Elective	Major 2
3	1	Chemistry selective^	Chemistry selective^	Elective	Major 2
	2	Chemistry selective^	Chemistry or Science Interdisciplinary Project	Elective	Major 2
4	1	Modern Nanoscience	Nanoscience and Nanotechnology Honours A	Nanoscience and Nanotechnology Honours B	Major 2
	2	Nano Selective List 1#	Nanoscience and Nanotechnology Honours C	Nanoscience and Nanotechnology Honours D	Major 2

*Chemistry selective units of study: Sustainable Chemical Manufacture (Sem 1) or Chemistry of Biological Molecules or Chemical Physics

^ Chemistry selective units of study: Sem 1; Synthetic Chemistry; Materials Chemistry; Environmental and Analytical Chemistry Sem 2; Chemical Biology; Molecular Self Assembly; Computational Chemistry

Nano selective List 1: Sem 1: Advanced Instrumentation for Nanotechnology; Nanomaterials in Medicine; Nanoscale Biomedical Diagnostics; Sem 2: Computational Nanotechnology Nanotechnology in Chemical Engineering; Quantum Nanoscience.

Bachelor of Science; Neuroscience program

Year	Semester	Units of study			
1	1	Chemistry 1A	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	Psychology 1002	Elective	Recommended core: Sydney Science 2050: Towards the Future	Major 2/Minor
2	1	Brain and Behavioural Psychology	Key Concepts in Physiology	Foundations of Pharmacology	Major 2/Minor
	2	Concepts of Neuroanatomy	Elective	Elective	Major 2/Minor
3	1	Functional Neuroanatomy	Neural Information Processing	Major 2/Elective	Major 2/Minor
	2	Neuropharmacology	Behavioural and Cognitive Neuroscience or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

Bachelor of Science; Neuroscience major

Year	Semester	Units of study			
1	1	Chemistry 1A	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	Psychology 1002	Elective	Recommended core: Sydney Science 2050: Towards the Future	Major 2/Minor
2	1	Brain and Behavioural Psychology	Elective	Elective	Major 2/Minor
	2	Concepts of Neuroanatomy	Elective	Elective	Major 2/Minor
3	1	Functional Neuroanatomy	Neural Information Processing	Major 2/Elective	Major 2/Minor
	2	Neuropharmacology	Behavioural and Cognitive Neuroscience or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

Bachelor of Science; Nutrition Science major

Year	Semester	Units of study			
1	1	Chemistry 1A	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Linear Algebra and Calculus	Major 2/Minor
2	1	Biochemistry and Molecular Biology	Elective	Elective	Major 2/Minor
	2	Proteins in Cells	Elective	Elective	Major 2/Minor
3	1	Introductory Nutrition and Metabolism	Food Processing and Value Adding	Major 2/Elective	Major 2/Minor
	2	Metabolic Cybernetics	Selective^	Major 2/Elective	Major 2/Minor

^ Selective units: Sem 1: Gene and Genome Regulation; Protein Function and Engineering. Sem 2: Biochemistry of Human Disease; Science Interdisciplinary Project

Bachelor of Science; Pharmacology major

Year	Semester	Units of study			
1	1	Chemistry 1A	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Sydney Science 2050: Towards the Future	Major 2/Minor
2	1	Foundations of Pharmacology	Elective	Elective	Major 2/Minor
	2	Clinical Applications of Pharmacology	Elective	Elective	Major 2/Minor
3	1	Toxicology	Drug Design and Development	Major 2/Elective	Major 2/Minor
	2	Neuropharmacology	Pharmacology or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

Bachelor of Science; Physics major

Year	Semester	Units of study			
1	1	Physics 1 or 1A	OLE	Recommended core: Calculus of One Variable and Multivariable Calculus	Major 2/Minor
	2	Physics 1 (Technological) or Physics 1B	Elective	Recommended core: Linear Algebra and Statistical Thinking with Data	Major 2/Minor
2	1	Physics 2A	Assumed Knowledge: Vector Calculus and Differential Equations	Elective	Major 2/Minor
	2	Physics 2B	Elective	Elective	Major 2/Minor
3	1	Quantum, Statistical and Comp Physics	Physics or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor
	2	Electrodynamics and Optics	Plasma and Astrophysics or Condensed Matter and Particle Physics (Sem1)	Major 2/Elective	Major 2/Minor

Bachelor of Science; Physiology major

Year	Semester	Units of study			
1	1	Chemistry 1A	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems or Human Biology (Sem 1)	Elective	Recommended core: Sydney Science 2050: Towards the Future	Major 2/Minor
2	1	Key Concepts in Physiology	Elective	Elective	Major 2/Minor
	2	Applied Physiology	Elective	Elective	Major 2/Minor
3	1	Cellular Physiology	Breadth units^ Systems Physiology	Major 2/Elective	Major 2/Minor
	2	Physiology or Science Interdisciplinary Project	Frontiers in Physiology	Major 2/Elective	Major 2/Minor

Bachelor of Science; Plant Production major

Year	Semester	Units of study			
1	1	Life and Evolution	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems	Elective	Recommended core: Linear Algebra and Calculus	Major 2/Minor
2	1	Plant Management in Agroecosystems	Elective	Elective	Major 2/Minor
	2	Plants and Environment	Elective	Elective	Major 2/Minor
3	1	Plant Protection	Selective^	Major 2/Elective	Major 2/Minor
	2	Sustainable Plant Production	Selective^	Major 2/Elective	Major 2/Minor

^ Selective units: Sem 1: Agroecosystems in Developing Countries; Applied Plant Function; Production Horticulture; Science Interdisciplinary Project. Sem 2: Environmental GIS; Science Interdisciplinary Project

Bachelor of Science; Psychology program

Year	Semester	Units of study			
1	1	Psychology 1001	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	Psychology 1002	Elective	Mathematics	Major 2/Minor
2	1	Statistics and Research Methods for Psychology	Brain and Behavioural Psychology	Elective	Major 2/Minor
	2	Perception, Cognition and Intelligence	Personality and Social Psychology	Elective	Major 2/Minor
3	1	Psychology selective^	Major 2/Elective	Major 2/Elective	Major 2/Minor
	2	Psychology selective^	Psychology Interdisciplinary Project*	Advanced Statistics for Psychology	Major 2/Minor

^ Third year selective units: Sem 1: : Advanced Statistics for Psychology; Learning and Behaviour; Cognitive Psychology; Personality and Psychological Assessment; Social Psychology; Mental Health Conditions;
Sem 2: Psychology and Psychiatry: History and Philosophy; Perceptual Systems; Behavioural and Cognitive Neuroscience; Developmental Psychology; Applied Psychology.
*Interdisciplinary project units: Sem 1: Learning and Behaviour; Cognitive Psychology; Social Psychology; Sem 2: Perceptual Systems; Behavioural and Cognitive Neuroscience; Psychology Interdisciplinary Project; Science Interdisciplinary Project; Applied Psychology.

Bachelor of Science; Psychological Science major

Year	Semester	Units of study			
1	1	Psychology 1001	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	Psychology 1002	Elective	Mathematics	Major 2/Minor
2	1	Statistics and Research Methods for Psychology	Elective	Elective	Major 2/Minor
	2	Selective#	Selective#	Elective	Major 2/Minor
3	1	Selective^	Elective	Major 2/Elective	Major 2/Minor
	2	Selective^	Psychology Interdisciplinary Project*	Major 2/Elective	Major 2/Minor

Second year selective units: Sem 1: Brain and Behavioural Psychology; Sem 2: Perception, Cognition and Intelligence; Personality and Social Psychology
^ Third year selective units: Sem 1: Psychology and Psychiatry: History and Philosophy; Learning and Behaviour; Cognitive Psychology; Personality and Psychological Assessment; Mental Health Conditions; Social Psychology; Sem 2: Advanced Statistics for Psychology; Perceptual Systems; Behavioural and Cognitive Neuroscience; Developmental Psychology; Applied Psychology;
*Interdisciplinary project units: Sem 1: Learning and Behaviour; Cognitive Psychology; Social Psychology; Sem 2: Perceptual Systems; Behavioural and Cognitive Neuroscience; Applied Psychology; Psychology Interdisciplinary Project; Science Interdisciplinary Project.

Bachelor of Science; Quantitative Life Sciences major

Year	Semester	Units of study			
1	1	Mathematics[#]	OLE	Elective	Major 2/Minor
	2	From Molecules to Ecosystems	Science	Recommended core: Linear Algebra and Calculus	Major 2/Minor
2	1	Applied Statistical Methods or Molecular Systems Biology	Selective*	Elective	Major 2/Minor
	2	Selective*	Elective	Elective	Major 2/Minor
3	1	Statistics in the Natural Sciences	Specialisation unit^	Major 2/Elective	Major 2/Minor
	2	Quantitative Biology or Science Interdisciplinary Project	Elective	Major 2/Elective	Major 2/Minor

[#] Mathematics units: Foundations of Data Science; Statistical Thinking with Data; Linear Algebra; Applications of Calculus; Mathematical Modelling; Introduction to Statistical Methods

*2000-level selectives: Biology Experimental Design and Analysis; Cell Biology; Data Analytics: Learning from Data; Applied Statistical Methods; Molecular Systems Biology.

^ Specialisation units: Sem 1: Interrogating Biomedical and Health Data; Gene Technology and Genomics; Statistics in the Natural Sciences. Sem 2: Beyond the Genome; Environmental GIS; Hydrological Modelling and Monitoring; Statistical Machine Learning; Applied Genomics;

Bachelor of Science; Software Development major

Year	Semester	Units of study			
1	1	Introduction to Programming	Elective	Recommended core: Foundations of Data Science	Major 2/Minor
	2	Object-Oriented Programming	OLE	Recommended core: Discrete Mathematics for Computation; and Linear Algebra or Calculus of One Variable	Major 2/Minor
2	1	Data Structures and Algorithms	Elective	Elective	Major 2/Minor
	2	Software Construction and Design 1	Agile Software Development Practices	Elective	Major 2/Minor
3	1	Software Construction and Design 2	Elective	Major 2/Elective	Major 2/Minor
	2	Software Development Project or Science Interdisciplinary Project	Human-Computer Interaction	Major 2/Elective	Major 2/Minor

Bachelor of Science; Soil Science and Hydrology major

Year	Semester	Units of study			
1	1	Chemistry 1A or Earth, Environment and Society or Global Challenges: Food, Water, Climate (Sem 2)	OLE	Recommended core: Foundations of Data Science	Major 2/Minor
	2	From Molecules to Ecosystems or Life and Evolution (Sem 1)	Elective	Recommended core: Linear Algebra and Calculus	Major 2/Minor
2	1	Soil and Water: Earth's Life Support Systems	Elective	Elective	Major 2/Minor
	2	Earth Surface Processes	Elective	Elective	Major 2/Minor
3	1	Statistics in the Natural Sciences or Science Interdisciplinary Project	Elective	Major 2/Elective	Major 2/Minor
	2	Hydrological Modelling and Monitoring	Protecting the Soil Resource	Environmental GIS	Major 2/Minor

Bachelor of Science; Statistics major

Year	Semester	Units of study			
1	1	Applications of Calculus or Calculus of One Variable and Linear Algebra	Science	OLE	Major 2/Minor
	2	Statistical Thinking with Data and Multivariable Calculus and Modelling or Foundations of Data Science	Science	Elective	Major 2/Minor
2	1	Probability and Estimation Theory	Elective	Elective	Major 2/Minor
	2	Data Analytics: Learning from Data	Elective	Elective	Major 2/Minor
3	1	Applied Linear Models	Stochastic Process or Time Series or Statistical Consulting	Major 2/Elective	Major 2/Minor
	2	Statistical Inference	Statistical Machine Learning or Science Interdisciplinary Project	Major 2/Elective	Major 2/Minor

Contact

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