

Science credit subjects* for pre-2008 BSc, BAsc and combined degree science courses

Year and Campus:	2014														
Coordinator:	Science Student Centre														
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Overview:	<p>The subjects listed below are available for science credit for students enrolled in the pre-2008 Bachelor of Science degree, the Bachelor of Arts and Sciences and combined degree Bachelor of Science courses.</p> <p>Please note: Students enrolled in the Bachelor of Arts and Sciences or the Bachelor of Arts/ Bachelor of Science cannot count Geography, HPS or Logic subjects towards the Science component of their course.</p>														
Learning Outcomes:	A summary list of subjects available for science credit (pre-2008 Bachelor of Science degree, the Bachelor of Arts and Sciences and combined degree Bachelor of Science courses).														
Structure & Available Subjects:	<p><u>Anatomy and Cell Biology</u> <u>Biochemistry and Molecular Biology</u> <u>Biology (Level 1)</u> <u>Biotechnology</u> <u>Botany</u> <u>Chemistry</u> <u>Computer Science and Software Engineering</u> <u>Earth Sciences</u> <u>Environments (Level 1)</u> <u>Environmental Science</u> <u>Genetics</u> <u>Geography</u> <u>History and Philosophy of Science</u> <u>Informatics and Information Systems</u> <u>Logic</u> <u>Mathematics and Statistics</u> <u>Microbiology and Immunology</u> <u>Pathology</u> <u>Pharmacology</u> <u>Physics</u> <u>Physiology</u> <u>Psychology</u> <u>Research Project subjects</u> <u>Science (General)</u> <u>Vision Science</u> <u>Zoology</u></p>														
Subject Options:	<p>Anatomy and Cell Biology</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>ANAT20006 Principles of Human Structure</td> <td>Semester 1, Semester 2</td> <td>12.50</td> </tr> <tr> <td>CEDB20003 Fundamentals of Cell Biology</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>CEDB30003 Developmental Biology</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table>			Subject	Study Period Commencement:	Credit Points:	ANAT20006 Principles of Human Structure	Semester 1, Semester 2	12.50	CEDB20003 Fundamentals of Cell Biology	Semester 1	12.50	CEDB30003 Developmental Biology	Semester 2	12.50
Subject	Study Period Commencement:	Credit Points:													
ANAT20006 Principles of Human Structure	Semester 1, Semester 2	12.50													
CEDB20003 Fundamentals of Cell Biology	Semester 1	12.50													
CEDB30003 Developmental Biology	Semester 2	12.50													

NEUR30005 Developmental Neurobiology	Semester 2	12.50
CEDB30002 Concepts in Cell & Developmental Biology	Semester 1	12.50
ANAT30007 Human Locomotor Systems	Semester 1	12.50
ANAT30008 Viscera and Visceral Systems	Semester 2	12.50
NEUR30003 Principles of Neuroscience	Semester 1	12.50
NEUR30004 Sensation Movement and Complex Functions	Semester 2	12.50
CEDB30004 Stem Cells in Development & Regeneration	Semester 2	12.50

Biochemistry and Molecular Biology

Subject	Study Period Commencement:	Credit Points:
BCMB20002 Biochemistry and Molecular Biology	Semester 1, Semester 2	12.50
BCMB20003 Biochemical Regulation of Cell Function	Semester 2	12.50
BCMB20005 Techniques in Molecular Science	Semester 1, Semester 2	12.50
BCMB30001 Protein Structure and Function	Semester 2	12.50
BCMB30002 Functional Genomics and Bioinformatics	Semester 1	12.50
BCMB30003 Molecular Aspects of Cell Biology	Semester 1	12.50
BCMB30004 Cell Signalling and Neurochemistry	Semester 2	12.50
BCMB30010 Advanced Techniques in Molecular Science	Semester 1, Semester 2	12.50
BCMB30011 Metabolism and Nutrition	Semester 1	12.50

Biology (Level 1)

Subject	Study Period Commencement:	Credit Points:
BIOL10004 Biology of Cells and Organisms	Semester 1	12.50
BIOL10005 Genetics & The Evolution of Life	Semester 2	12.50
BIOL10001 Biology of Australian Flora & Fauna	Semester 2	12.50

Biotechnology

Subject	Study Period Commencement:	Credit Points:
BTCH20002 Biotechnology	Semester 2	12.50
BTCH30003 Biotechnology in Practice	Semester 1	12.50

Botany

Subject	Study Period Commencement:	Credit Points:
BOTA20001 Green Planet: Plants and the Environment	Semester 1	12.50
BOTA20002 Plant Biodiversity	Semester 2	12.50
BOTA20004 Flora of Victoria	February	12.50

BOTA30001 Marine Botany	November	12.50
BOTA30002 Plant Evolution	Semester 2	12.50
BOTA30003 Environmental Plant Physiology	Semester 1	12.50
BOTA30004 Vegetation Management and Conservation	Semester 2	12.50
BOTA30005 Plant Molecular Biology & Biotechnology	Semester 2	12.50
BOTA30006 Field Botany	January	12.50

Chemistry

Subject	Study Period Commencement:	Credit Points:
CHEM10003 Chemistry 1	Semester 1, Semester 2	12.50
CHEM10004 Chemistry 2	Summer Term, Semester 2	12.50
CHEM10007 Fundamentals of Chemistry	Semester 1	12.50
CHEM20011 Environmental Chemistry	Semester 1	12.50
CHEM20018 Chemistry: Reactions and Synthesis	Semester 1	12.50
CHEM20019 Practical Chemistry 2	Semester 2	12.50
CHEM20020 Chemistry: Structure and Properties	Semester 2	12.50
CHEM30001 Physical Chemistry III	Semester 1	12.50
CHEM30004 Organic Chemistry III	Semester 1	12.50
CHEM30009 Inorganic Chemistry III	Semester 1	12.50
CHEM30014 Specialised Topics in Chemistry B	Semester 2	12.50
CHEM30015 Advanced Practical Chemistry	Semester 1	12.50
CHEM30016 Reactivity and Mechanism	Semester 1	12.50
CHEM30017 Specialised Topics in Chemistry A	Semester 1	12.50
CHEM30012 Analytical & Environmental Chemistry	Semester 2	12.50
CHEM30013 Chemical Research Project	Summer Term, Semester 2	12.50

Computer Science and Software Engineering

Subject	Study Period Commencement:	Credit Points:
COMP10001 Foundations of Computing	Semester 1, Semester 2	12.50
COMP10002 Foundations of Algorithms	Semester 1, Semester 2	12.50
COMP20004 Discrete Structures	Not offered 2014	12.50
COMP20005 Engineering Computation	Semester 1, Semester 2	12.50
COMP20003 Algorithms and Data Structures	Semester 2	12.50
COMP20007 Design of Algorithms	Semester 1	12.50

SWEN20003 Object Oriented Software Development	Semester 2	12.50
COMP30016 Computer Science Project	Not offered 2014	12.50
COMP30017 Operating Systems and Network Services	Not offered 2014	12.50
COMP30018 Knowledge Technologies	Semester 1, Semester 2	12.50
COMP30019 Graphics and Interaction	Semester 2	12.50
COMP30020 Declarative Programming	Semester 2	12.50
COMP30021 Theoretical Computer Science	Not offered 2014	12.50
SWEN30006 Software Modelling and Design	Semester 1, Semester 2	12.50
SWEN90006 Software Engineering Methods	Semester 2	12.50

Earth Sciences

Subject	Study Period Commencement:	Credit Points:
ERTH10001 The Global Environment	Semester 1	12.50
ERTH10002 Understanding Planet Earth	Semester 2	12.50
GEOL20001 Geology of Southeast Australia	February	12.50
GEOL20002 Structural and Metamorphic Geology	Semester 1	12.50
ERTH20001 Dangerous Earth	Semester 2	12.50
GEOL20003 Earth Composition, Minerals and Magmas	Semester 1	12.50
GEOL20004 Field Mapping and Sedimentary Geology	June	12.50
ATOC20001 Weather and Climate Systems	Semester 1	12.50
ATOC20002 Atmospheric Environment Processes	Semester 2	12.50
GEOL30002 Tectonics & Geodynamics	Semester 1	12.50
GEOL30003 Sedimentary Geology	Semester 2	12.50
GEOL30004 Geochemistry & Petrogenesis	Semester 1	12.50
GEOL30005 Applied Geophysics	Semester 2	12.50
GEOL30006 Economic Geology	Semester 2	12.50
ERTH30001 Hydrogeology/Environmental Geochemistry	Semester 1	12.50
GEOL30009 Advanced Field Geology	July	12.50
ATOC30003 Atmosphere Ocean Interaction	Semester 2	12.50
ATOC30004 Dynamical Meteorology and Oceanography	Semester 1	12.50
ATOC30005 Global Climates of the Past	Semester 1	12.50
ATOC30006 Modern and Future Climate	Semester 2	12.50
GEOL30007 Geobiology and Palaeobiology	Semester 1	12.50

Environments (Level 1)

Subject	Study Period Commencement:	Credit Points:
ENVS10001 Natural Environments	Semester 1, Semester 2	12.50

Environmental Science

Subject	Study Period Commencement:	Credit Points:
EVSC20004 Blue Planet-Intro to Marine Environments	Semester 1	12.50
EVSC30002 Problem Solving in Environmental Science	Semester 2	12.50
EVSC30003 Environmental Risk Assessment	Semester 1	12.50

Genetics

Subject	Study Period Commencement:	Credit Points:
GENE20001 Principles of Genetics	Semester 1	12.50
GENE20002 Genes and Genomes	Semester 2	12.50
GENE20003 Experiments in Genetics	Semester 1, Semester 2	12.50
GENE30001 Evolutionary Genetics and Genomics	Semester 1	12.50
GENE30002 Genes: Organisation and Function	Semester 1	12.50
GENE30004 Genetic Analysis	Semester 2	12.50
GENE30005 Human and Medical Genetics	Semester 2	12.50

Geography

Geography subjects are not available as science credit for students enrolled in the Bachelor of Arts and Science or the Bachelor of Arts/Bachelor of Science combined degree.

Subject	Study Period Commencement:	Credit Points:
GEOG10001 Famine: The Geography of Scarcity	Semester 1	12.50
ENST20002 Environmental Change Field Class	Semester 2	12.50
GEOG20001 Society and Environments	Semester 1	12.50
GEOG20002 Understanding Global Landforms	Semester 1	12.50
GEOG20003 Environmental Politics and Management	Semester 1	12.50
GEOG20009 Landscapes and Diversity	Semester 2	12.50
GEOG30022 River Ecology & Ecosystem Management	Semester 1	12.50
GEOG30019 Sustainable Development	Semester 1	12.50
GEOG30001 Coastal Landforms & Processes	Semester 1	12.50
GEOG30003 Geographical Thought	Semester 1	12.50
GEOG30004 Fluvial Geomorphology	Semester 2	12.50
GEOG30007 China Field Class	Semester 2	25
GEOG30021 The Disaster Resilient City	Semester 2	12.50

ENST30002 Land And Environment Research Project	Semester 1, Semester 2	12.50
GEOG30023 Global Climate Change in Context	February	12.50
GEOG30024 Africa: Environment, Development, People	Semester 2	12.50

History and Philosophy of Science (HPS)

History and Philosophy of Science (HPS) subjects are not available as science credit for students enrolled in the Bachelor of Arts and Science or the Bachelor of Arts/Bachelor of Science combined degree.

Some subjects are offered at multiple subject year levels. Students should check the subject year level which is clearly indicated in the individual subject entry.

Subject	Study Period Commencement:	Credit Points:
HPSC10001 From Plato to Einstein	Semester 2	12.50
UNIB10003 An Ecological History of Humanity	Semester 1	12.50
HPSC20001 Darwinism: history of a very big idea	Semester 2	12.50
PHIL20001 Science, Reason and Reality	Semester 2	12.50
HPSC20002 A History of Nature	January	12.50
HPSC20009 iSociety: Technology & Contemporary Life	Semester 1	12.50
HPSC20020 God and the Natural Sciences	Semester 1	12.50
HPSC30002 Minds&Madness (Science 3)	Not offered 2014	12.50
HPSC30004 Darwinism: history of a very big idea S3	Not offered 2014	12.50
PHIL30004 Science, Reason and Reality (Science 3)	Not offered 2014	12.50
HPSC30005 A History of Nature (Science 3)	Not offered 2014	12.50
HPSC30032 God and the Natural Sciences (Science 3)	Not offered 2014	12.50
HPSC30008 Astronomy in World History (Science 3)	Not offered 2014	12.50
HPSC30035 Knowledge in the Making	Semester 2	12.50
HPSC30023 Science and Society	Semester 1	12.50
HPSC30034 Magic, Reason, New Worlds, 1450-1750	Semester 1	12.50
HPSC30028 Philosophy of Biology	Not offered 2014	12.50
HPSC30019 Minds and Madness	Semester 2	12.50

Informatics and Information Systems

Subject	Study Period Commencement:	Credit Points:
INFO20002 Foundations of Informatics	Semester 1	12.50
INFO20003 Database Systems	Semester 2	12.50
INFO30004 Usability Engineering	Semester 1	12.50
INFO30005 Web Information Technologies	Semester 1	12.50
INFO30006 Information Management Techniques	Semester 2	12.50

Logic

Logic (Philosophy) subjects are not available as science credit for students enrolled in the Bachelor of Arts and Science or the Bachelor of Arts/Bachelor of Science combined degree.

Subject	Study Period Commencement:	Credit Points:
PHIL20030 Meaning, Possibility and Paradox	Semester 1	12.50

Mathematics and Statistics

Subject	Study Period Commencement:	Credit Points:
MAST10005 Calculus 1	Semester 1, Semester 2	12.50
MAST10006 Calculus 2	Semester 1, Semester 2	12.50
MAST10007 Linear Algebra	Summer Term, Semester 1, Semester 2	12.50
MAST10008 Accelerated Mathematics 1	Semester 1	12.50
MAST10009 Accelerated Mathematics 2	Semester 2	12.50
MAST10010 Data Analysis 1	Semester 2	12.50
MAST20004 Probability	Semester 1	12.50
MAST20005 Statistics	Semester 2	12.50
MAST20006 Probability for Statistics	Semester 1	12.50
MAST20009 Vector Calculus	Semester 1, Semester 2	12.50
MAST20018 Discrete Maths and Operations Research	Semester 2	12.50
MAST20022 Group Theory and Linear Algebra	Semester 2	12.50
MAST20026 Real Analysis	Semester 1, Semester 2	12.50
MAST20029 Engineering Mathematics	Summer Term, Semester 1, Semester 2	12.50
MAST30001 Stochastic Modelling	Semester 2	12.50
MAST30005 Algebra	Semester 1	12.50
MAST30011 Graph Theory	Semester 1	12.50
MAST30012 Discrete Mathematics	Semester 2	12.50
MAST30013 Techniques in Operations Research	Semester 1	12.50
MAST30020 Probability and Statistical Inference	Semester 1	12.50
MAST30021 Complex Analysis	Semester 1, Semester 2	12.50
MAST30022 Decision Making	Semester 2	12.50
MAST30024 Geometry	Semester 2	12.50
MAST30025 Linear Statistical Models	Semester 1	12.50
MAST30026 Metric and Hilbert Spaces	Semester 2	12.50
MAST30027 Modern Applied Statistics	Semester 2	12.50

MAST30028 Numerical and Symbolic Mathematics	Semester 2	12.50
MAST30030 Applied Mathematical Modelling	Semester 1	12.50
MAST30031 Methods of Mathematical Physics	Semester 2	12.50

Microbiology and Immunology

Subject	Study Period Commencement:	Credit Points:
MIIM20001 Principles of Microbiology & Immunology	Semester 1	12.50
MIIM20002 Microbes, Infections and Responses	Semester 2	12.50
MIIM30002 Principles of Immunology	Semester 1	12.50
MIIM30003 Medical and Applied Immunology	Semester 2	12.50
MIIM30011 Medical Microbiology: Bacteriology	Semester 1	12.50
MIIM30014 Medical Microbiology: Virology	Semester 2	12.50
MIIM30015 Techniques in Immunology	Semester 2	12.50
MIIM30016 Techniques in Microbiology	Semester 1	12.50

Pathology

Subject	Study Period Commencement:	Credit Points:
PATH20001 Exploring Human Disease - Science	Semester 2	12.50
PATH20003 Experimental Pathology	Semester 2	12.50
PATH30001 Mechanisms of Human Disease	Semester 1	12.50
PATH30002 Techniques for Investigation of Disease	Semester 1	12.50
PATH30003 Frontiers in Human Disease	Semester 2	12.50
PATH30004 Advanced Investigation of Human Disease	Semester 2	12.50

Pharmacology

Subject	Study Period Commencement:	Credit Points:
PHRM20001 Pharmacology: How Drugs Work	Semester 2	12.50
PHRM30002 Drugs Affecting the Nervous System	Semester 2	12.50
PHRM30003 Drug Treatment of Disease	Semester 2	12.50
PHRM30008 Drugs: From Discovery to Market	Semester 1	12.50
PHRM30009 Drugs in Biomedical Experiments	Semester 1, Semester 2	12.50

Physics

Subject	Study Period Commencement:	Credit Points:
PHYC10003 Physics 1	Semester 1	12.50
PHYC10005 Physics 1: Fundamentals	Semester 1	12.50

PHYC10001 Physics 1: Advanced	Semester 1	12.50
PHYC10004 Physics 2: Physical Science & Technology	Semester 2	12.50
PHYC10006 Physics 2: Life Sciences & Environment	Semester 2	12.50
PHYC10002 Physics 2: Advanced	Semester 2	12.50
PHYC20009 Thermal and Classical Physics	Semester 1	12.50
PHYC20010 Quantum Mechanics and Special Relativity	Semester 1	12.50
PHYC20011 Electromagnetism and Optics	Semester 2	12.50
PHYC30018 Quantum Physics	Semester 1	12.50
PHYC30011 Sub-atomic Physics	Semester 2	12.50
PHYC30019 Astrophysics	Semester 1	12.50
PHYC30012 Computational Physics	Semester 2	12.50
PHYC30020 Quantum Systems	Semester 2	12.50
PHYC30016 Electrodynamics	Semester 1	12.50
PHYC30017 Statistical Physics	Semester 2	12.50
PHYC30014 Laboratory Work A	Semester 1, Semester 2	12.50
PHYC30015 Laboratory Work B	Semester 1, Semester 2	12.50
PHYC10008 From the Solar System to the Cosmos	Semester 2	12.50

Physiology

Subject	Study Period Commencement:	Credit Points:
PHYS20008 Human Physiology	Semester 1, Semester 2	12.50
PHYS20009 Research-Based Physiology	Semester 1, Semester 2	12.50
PHYS30001 Cardiovascular Health: Genes & Hormones	Semester 2	12.50
PHYS30005 Muscle and Exercise Physiology	Semester 1	12.50
NEUR30002 Neurophysiology: Neurons and Circuits	Semester 1	12.50
PHYS30008 Frontiers in Physiology	Semester 2	12.50
PHYS30009 Experimental Physiology	Semester 1	12.50

Psychology

Subject	Study Period Commencement:	Credit Points:
PSYC10003 Mind, Brain & Behaviour 1	Semester 1	12.50
PSYC10004 Mind, Brain and Behaviour 2	Semester 2	12.50
PSYC20006 Biological Psychology	Semester 1	12.50
PSYC20007 Cognitive Psychology	Semester 2	12.50
PSYC20008 Developmental Psychology	Semester 1	12.50

PSYC20009 Personality and Social Psychology	Semester 2	12.50
PSYC30012 The Unconscious Mind	Semester 1	12.50
PSYC30013 Research Methods for Human Inquiry	Semester 1	12.50
PSYC30014 The Psychopathology of Everyday Life	Semester 2	12.50
PSYC30015 Applications in Psychology	Semester 2	12.50
PSYC30016 Social and Emotional Development	Semester 1	12.50
PSYC30017 Perception, Memory and Cognition	Semester 1	12.50
PSYC30018 Neuroscience and the Mind	Semester 1	12.50
PSYC30019 Development of the Thinking Child	Semester 2	12.50
PSYC30020 Psychology of Sleep and Emotions	Semester 2	12.50
PSYC30021 Psychological Science: Theory & Practice	Semester 2	12.50
PSYC30022 Trends in Personality & Social Psychology	Semester 2	12.50

Science - General

Subject	Study Period Commencement:	Credit Points:
MULT10011 Introduction to Life, Earth and Universe	Semester 1	12.50
SCIE20001 Thinking Scientifically	Semester 2	12.50

Research Project subjects

Subject	Study Period Commencement:	Credit Points:
ENST30002 Land And Environment Research Project	Semester 1, Semester 2	12.50
SCIE30001 Science Research Project	Summer Term, Semester 1, Semester 2	12.50
BIOM30003 Biomedical Science Research Project	Summer Term, Semester 1, Semester 2	12.50

Vision Science

Subject	Study Period Commencement:	Credit Points:
NEUR30001 Neural Basis of Vision	Semester 2	12.50
PATH30005 Ocular Histopathology	Semester 1	12.50
OPTO30007 Visual Neuroscience	Semester 2	12.50

Zoology

Subject	Study Period Commencement:	Credit Points:
ZOOL20004 Australian Wildlife Biology	Semester 1	12.50
ZOOL20005 Animal Structure and Function	Semester 1	12.50
ZOOL20006 Comparative Animal Physiology	Semester 2	12.50

	ECOL20003 Ecology	Semester 2	12.50
	BIOL30001 Reproductive Physiology	Semester 2	12.50
	ZOOL30004 Evolution and the Human Condition	Semester 1	12.50
	ZOOL30006 Animal Behaviour	Semester 1	12.50
	ZOOL30007 Experimental Animal Behaviour	Semester 1	12.50
	ZOOL30008 Experimental Marine Biology	February	12.50
	ZOOL30009 Field Biology of Australian Wildlife	Semester 2	12.50
	ECOL30005 Applied Ecology	Semester 2	12.50
	ECOL30006 Ecology in Changing Environments	Semester 1	12.50
	ECOL30007 Marine Ecosystems: Ecology & Management	Semester 1	12.50
	BIOL30002 Experimental Reproductive Physiology	Semester 2	12.50
Related Course(s):	Bachelor of Arts and Bachelor of Science Bachelor of Commerce and Bachelor of Science		