

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

Year and Campus:	2011																	
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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>																	
Objectives:	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>Science (General)</u> <u>Science (Research)</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>CEDB20002 Cells, Tissues and Organs</td> <td>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	CEDB20002 Cells, Tissues and Organs	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																
CEDB20002 Cells, Tissues and Organs	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

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

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 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	December	12.50
BOTA30002 Plant Systematics and Evolution	Semester 1	12.50
BOTA30003 Plant Physiological Ecology	Not offered 2011	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
BOTA30007 Marine Phytoplankton of Australia	November	12.50

Chemistry

Subject	Study Period Commencement:	Credit Points:
CHEM10003 Chemistry 1	Semester 1, Semester 2	12.50
CHEM10004 Chemistry 2	January, Semester 2	12.50
CHEM10007 Fundamentals of Chemistry	Semester 1	12.50
CHEM20011 Environmental Chemistry	Semester 1	12.50
CHEM20014 Organic and Physical Chemistry 2	Year Long	12.50
CHEM20018 Reactions and Synthesis	Semester 1	12.50
CHEM20019 Practical Chemistry 2	Semester 2	12.50
CHEM20020 Structure and Properties	Semester 2	12.50
CHEM20025 Physical and Inorganic Chemistry 2	Year Long	12.50
CHEM20021 Physical Chemistry 2	Year Long	12.50
CHEM20022 Organic Chemistry 2	Year Long	12.50
CHEM20023 Inorganic Chemistry 2	Year Long	12.50
CHEM20024 Organic and Inorganic Chemistry 2	Year Long	12.50
CHEM30001 Physical Chemistry IIIA	Semester 1	12.50
CHEM30002 Physical Chemistry IIIB	Year Long	12.50
CHEM30003 Physical Chemistry Practical III	Semester 1	6.25
CHEM30004 Organic Chemistry IIIA	Year Long	12.50
CHEM30005 Organic Chemistry IIIB	Year Long	12.50
CHEM30006 Organic Chemistry Practical III	Semester 1	6.25
CHEM30009 Inorganic Chemistry IIIA	Year Long	12.50
CHEM30010 Inorganic Chemistry IIIB	Year Long	12.50
CHEM30011 Inorganic Chemistry Practical III	April	6.25
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:
SWEN20003 Object Oriented Software Development	Not offered 2011	12.50
COMP20004 Discrete Structures	Not offered 2011	12.50
COMP20005 Engineering Computation	Not offered 2011	12.50
COMP20006 Programming the Machine	Not offered 2011	12.50
COMP20003 Algorithms and Data Structures	Not offered 2011	12.50
SWEN30006 Software Modelling and Design	Not offered 2011	12.50
COMP30017 Operating Systems and Network Services	Not offered 2011	12.50
COMP30016 Computer Science Project	Not offered 2011	12.50
COMP30019 Graphics and Interaction	Not offered 2011	12.50
COMP30021 Theoretical Computer Science	Not offered 2011	12.50
COMP30020 Declarative Programming	Not offered 2011	12.50
COMP30018 Knowledge Technologies	Not offered 2011	12.50
SWEN90008 Software Processes and Management	Not offered 2011	12.50
SWEN90006 Software Engineering Methods	Not offered 2011	12.50

Earth Sciences

Subject	Study Period Commencement:	Credit Points:
ERTH10001 The Global Environment	Not offered 2011	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 and Environmental Geology	Not offered 2011	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	Not offered 2011	12.50

Environmental Science

Subject	Study Period Commencement:	Credit Points:
EVSC20004 Blue Planet-Intro to Marine Environments	Not offered 2011	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 in the Modern World	Semester 1	12.50
GEOG20001 Society and Environments	Semester 1	12.50
GEOG20002 Understanding Global Landforms	Semester 1	12.50
GEOG20003 Environmental Politics and Management	Semester 2	12.50
GEOG20009 Rivers, Lakes and Wetlands	Not offered 2011	12.50
GEOG30022 Rivers: Hydrology and Ecology	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
ENST30001 Environmental Change Field Class	Not offered 2011	25
DEVT30001 Africa: Environment, Development, People	Semester 2	12.50
GEOG30007 China Field Class	Semester 2	25
GEOG30021 The Disaster Resilient City	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	Not offered 2011	12.50
UNIB10003 An Ecological History of Humanity	Not offered 2011	12.50
HPSC20001 Darwinism	Not offered 2011	12.50
PHIL20001 Science, Reason and Reality	Not offered 2011	12.50
HPSC20002 A History of Nature	Not offered 2011	12.50
HPSC20009 Cybersociety	Not offered 2011	12.50
HPSC20020 God and the Natural Sciences	Not offered 2011	12.50
HPSC20015 Astronomy in World History	Semester 2	12.50
HPSC30025 Philosophy of Biology (Science 3)	Not offered 2011	12.50
HPSC30002 Minds&Madness (Science 3)	Not offered 2011	12.50
HPSC30004 Darwinism (Science 3)	Not offered 2011	12.50
PHIL30004 Science, Reason and Reality (Science 3)	Not offered 2011	12.50
HPSC30005 A History of Nature (Science 3)	Not offered 2011	12.50
HPSC30032 God and the Natural Sciences (Science 3)	Not offered 2011	12.50
HPSC30008 Astronomy in World History Science 3	Not offered 2011	12.50

Informatics and Information Systems

Subject	Study Period Commencement:	Credit Points:
INFO10001 Informatics 1: Data on the Web	Semester 1, Semester 2	12.50
INFO10002 Informatics 2: Programming on the Web	Not offered 2011	12.50
INFO20001 Informatics 3: Content Management	Not offered 2011	12.50
SINF20006 Information Visualisation	Not offered 2011	12.50
SINF20007 Information Modelling	Not offered 2011	12.50
SINF20004 Systems Analysis and Design	Not offered 2011	12.50

SINF30004 Human Computer Interaction	Semester 1	12.50
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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	Not offered 2011	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
MAST20029 Engineering Mathematics	Summer Term, Semester 1, Semester 2	12.50
MAST20026 Real Analysis with Applications	Semester 1, Semester 2	12.50
MAST20022 Group Theory and Linear Algebra	Semester 2	12.50
MAST20019 Dynamical Systems and Chaos	Semester 2	12.50
MAST30001 Stochastic Modelling	Semester 2	12.50
MAST30005 Algebra	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
MAST30023 Differential Equations for Engineers	Semester 1	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 1	12.50

MAST30029 Partial Differential Equations	Semester 2	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

Microbiology and Immunology

Subject	Study Period Commencement:	Credit Points:
MIIM20001 Principles of Microbiology & Immunology	Semester 1	12.50
MIIM20003 Experimental Microbiology	Semester 1, Semester 2	12.50
MIIM30002 Principles of Immunology	Semester 1	12.50
MIIM30003 Medical and Applied Immunology	Semester 2	12.50
MIIM30011 Molecular and Medical Microbiology	Not offered 2011	12.50
MIIM30013 Techniques in Microbiology & Immunology	Semester 1, Semester 2	12.50
MIIM30014 Viruses and Other Parasites	Not offered 2011	12.50

Pathology

Subject	Study Period Commencement:	Credit Points:
PATH20001 Exploring Human Disease - Science	Semester 2	12.50
PATH30001 Mechanisms of Human Disease	Semester 1	12.50
PATH30002 Techniques for Investigation of Disease	Semester 1	12.50
PATH30003 Consequences of 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
PHRM30007 Drug Development Techniques	Not offered 2011	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
PHYC20005 Quantum Mechanics & Thermal Physics	Semester 1	12.50
PHYC20008 Laboratory Work	Semester 1, 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
PHYC30013 Principles and Applications of Sensors	Not offered 2011	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

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 1	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

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
PSYC20001 Quantitative Methods for Psychology 2	Not offered 2011	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 Organisational Psychology	Semester 2	12.50
PSYC30016 Developing Persons in Social Worlds	Semester 1	12.50
PSYC30017 Advanced Studies of Human 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 Advanced Personality & Social Psychology	Semester 2	12.50
PSYC30011 Intro. to Mathematical Psychology 3	Not offered 2011	12.50

Science - General

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

Science - Research

Subject	Study Period Commencement:	Credit Points:
SCIE30001 Science Research Project	Summer Term, Semester 1, Semester 2	12.50

Vision Science

Subject	Study Period Commencement:	Credit Points:
OPTO10001 Vision: How The Eye Sees The World	Semester 1	12.50
OPTO10002 Optics: From Rainbows to Digital Imaging	Semester 2	12.50
OPTO30003 Practical Problems in Vision	Semester 1	12.50
NEUR30001 Neural Basis of Vision	Semester 2	12.50
PATH30005 Ocular Histopathology	Semester 1	12.50
OPTO30006 Ophthalmic Dispensing Practice	Semester 2	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 Reproduction	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	Not offered 2011	12.50
Related Course(s):	Bachelor of Arts and Bachelor of Science Bachelor of Arts and Sciences Bachelor of Commerce and Bachelor of Science Bachelor of Science Bachelor of Science and Bachelor of Information Systems		