

PROGRAM PLAN


BACHELOR OF ARTS / BACHELOR OF SCIENCE

PROGRAM OPTION:
All Science Majors apart from Physics

START DATE:
Semester 2, 2021

LOCATION:
Callaghan

This Program Plan is an enrolment guide to ensure you are on track to graduate. If at any time you wish to vary from this program plan seek advice from your Program Advisor to ensure you remain on track.

 **PROGRAM HANDBOOK**
 **COURSE HANDBOOK**

NAME:

STUDENT NO.:

YEAR	SEMESTER 1	SEMESTER 1	SEMESTER 1	SEMESTER 1	SEMESTER 2	SEMESTER 2	SEMESTER 2	SEMESTER 2	SEMESTER 2
YEAR 1					ARTS MAJOR 1000 level	ARTS MAJOR 1000 level	SCIENCE MAJOR	MATHS* DIRECTED COURSE	
					MAJOR	MAJOR	MAJOR	DIRECTED	
YEAR 2	HASS1000 BA Futures	SCIE1001 Professional Scientific Thinking	SCIE1002 Multidisciplinary Laboratories	SCIENCE MAJOR	STAT1070 Statistics for the Sciences	ARTS MAJOR 2000 level	SCIENCE MAJOR	ELECTIVE** 1000/2000/3000 level	
	CORE	CORE	CORE	MAJOR	CORE	MAJOR	MAJOR	ELECTIVE	
YEAR 3	HASS2000 BA Practice	SCIE2001 Professional Employment Skills	SCIENCE MAJOR	ARTS MAJOR 2000 level	HASS3000 BA Project	SCIE2002 Interdisciplinary Challenges	ARTS MAJOR 3000 level	SCIENCE MAJOR	
	CORE	CORE	MAJOR	MAJOR	CORE	CORE	MAJOR	MAJOR	
YEAR 4	SCIE3001A Transdisciplinary Capstone: Planning and Implementing	ARTS MAJOR 3000 level	SCIENCE MAJOR	ELECTIVE** 2000/3000 level ELECTIVE	SCIE3001B Transdisciplinary Capstone: Implementing and Communicating	SCIENCE MAJOR	ARTS MAJOR 3000 level	ELECTIVE** 2000/3000 level ELECTIVE	
	CORE	MAJOR	MAJOR	OR ARTS MINOR MINOR	CORE	MAJOR	MAJOR	OR ARTS MINOR MINOR	
YEAR 5	ARTS MAJOR 3000 level	SCIENCE MAJOR	ELECTIVE** 2000/3000 level ELECTIVE	ELECTIVE** 2000/3000 level ELECTIVE					
	MAJOR	MAJOR	OR ARTS MINOR MINOR	OR ARTS MINOR MINOR					

Science Majors: Biodiversity and Conservation – Biological Sciences – Chemistry (Advanced Materials) – Chemistry (Medicinal and Organic) - Earth Sciences – Geography – Mathematics – Psychology – Statistics

*Students choose their MATH Directed course based on previous mathematical background. See the [Enrolling in mathematics](#) – Maths Placement Test information.

****Elective Options include:** Science Elective Pathways or any unrestricted courses offered within the university. When choosing electives students must consider that the courses for the overall program must not exceed 100 units at 1000 level and must include a minimum of 60 units at 3000 level.

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To be eligible to graduate make sure you have completed 320 units (10 units = 1 course unless otherwise specified) which meet the following criteria:

- Core courses – 100 units (30 units of Arts Core courses plus 70 units of Science Core courses)
- MATH Directed course – 10 units.
- Science Major – 80 units.
- Arts Major – 80 units.

Plus Either

- Electives - 50 units, electives can be chosen from Science Elective Pathways or any unrestricted courses offered within the university. Refer to the Science Elective Pathway Documents located on the [Program Handbook](#) or visit the [Course Handbook](#) to see a list of available Electives.

Or

- Arts Minor – 40 units and 10 units of electives.

- Students must complete a minimum of 40 units at all levels (1000, 2000 and 3000)
- Students must not exceed 120 units at 1000 level in this program.
- The duration of this program is 4 year full-time (40 units per semester) or part-time equivalent.
- The maximum time to complete this program is 10 years.



Some courses have assumed knowledge and/or requisites, please refer to the individual [Course Handbook](#). Please refer to the [Program Handbook](#) for specific information on program structure. If you are intending varying from this program plan please seek advice from your [Program Advisor](#).

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BACHELOR OF ARTS / BACHELOR OF SCIENCE

BACHELOR OF SCIENCE MAJORS

BIODIVERSITY AND CONSERVATION MAJOR

COMPULSORY COURSES

Complete the following compulsory courses:

ENVS1001: Environmental Science Concepts & Methods
ENVS1003: Environmental Values and Ethics
ENVS3003: Conservation Biology
ENVS3004: Ecotoxicology
ENVS3005: Animal Behaviour

DIRECTED COURSES – 2000 LEVEL

Complete 20 units from:

ENVS2004: Ecology
ENVS2005: Management of Australian Flora
ENVS2006: Ecology and Management of Wildlife

DIRECTED COURSES – 3000 LEVEL

Complete 10 units from:

ENVS3009: Advanced Water Science and Resource Management
MARI3320: Ecological Methodology
SRMT3060: Restoration Ecology
SCIE3500 Research Integrated Learning

BIOLOGICAL SCIENCES MAJOR

COMPULSORY COURSES

Complete the following compulsory courses:

BIOL1001: Molecules, Cells and Organisms
BIOL1002: Organisms to Ecosystems
BIOL2001: Molecular Lab Skills for Biological Sciences
BIOL2002: Lab Skills in Biological Systems
BIOL3001: Advanced Lab Skills in Biological Sciences

Directed Pathways – choose one of the following pathways

MICROBIOLOGY

Complete the following compulsory courses:

BIOL2090: Microbial Biology
BIOL3090: Molecular Biology
BIOL3100: Microbiology

ANIMAL AND PLANT BIOLOGY

Complete the following compulsory courses:

BIOL2220: Plant Cell Development
BIOL3020: Animal Physiology, Reproduction and Development
BIOL3090: Molecular Biology

CHEMISTRY (ADVANCED MATERIALS) MAJOR

COMPULSORY COURSES

Complete the following compulsory courses:

CHEM1010: Introductory Chemistry I
CHEM1020: Introductory Chemistry II
CHEM2110: Analytical Chemistry
CHEM2210: Inorganic Chemistry
CHEM2410: Physical Chemistry
CHEM3110: Instrumental Chemical Analysis

DIRECTED COURSES

Complete 20 units from:

CHEM3210: Metal Complexation, Structure and Reactivity
CHEM3410: Energy and Structure
CHEM3580: Polymers and Colloids

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BACHELOR OF SCIENCE MAJORS

CHEMISTRY (MEDICINAL AND ORGANIC) MAJOR

COMPULSORY COURSES

Complete the following compulsory courses:

CHEM1010: Introductory Chemistry I
CHEM1020: Introductory Chemistry II
CHEM2110: Analytical Chemistry
CHEM2310: Organic Chemistry
CHEM2410: Physical Chemistry
CHEM3110: Instrumental Chemical Analysis

DIRECTED COURSES

Complete 20 units from:

CHEM3210: Metal Complexation, Structure and Reactivity
CHEM3310: Molecular Organic Synthesis
CHEM3550: Medicinal and Biological Chemistry

EARTH SCIENCES MAJOR

COMPULSORY COURSES

Complete the following compulsory courses:

GEOS1040: Earth's Dynamic Systems
GEOS1050: Earth Processes and Products
GEOS2080: Earth Science Field Course
GEOS2161: Spatial Science
GEOS3250: Advanced Spatial Science

DIRECTED COURSES – 2000 LEVEL

Complete 10 units from:

GEOS2050: River Basin Processes
GEOS2060: Soil Properties and Processes
ENVS2009: Catchment and Water Resource Management
SCIE2223: Weather and Waves

DIRECTED COURSES – 3000 LEVEL

Complete 20 units from:

ECON3006: Environmental Economics
ENVS3007: Environmental Remediation
ENVS3009: Advanced Water Science and Resource Management
GEOS3220: Coastal Environments and Processes
GEOS3280: Global Change and the Rise of Modern Environments
GEOS3340: Climate Change and Resource Management

GEOGRAPHY MAJOR

COMPULSORY COURSES

Complete the following compulsory courses:

GEOG1020: Introduction to Human Geography
GEOS1040: Earth's Dynamic Systems
GEOS2161: Spatial Science
GEOS3250: Advanced Spatial Science

DIRECTED COURSES – 2000 LEVEL

Complete 10 units from:

ENVS2002: Environmental Legislation & Planning
ENVS2008: The Sustainable Society
GEOG2080: Cities and Regions
GEOG2130: Geographies of Development
GEOS2050: River Basin Processes
GEOS2080: Earth Science Field Course
SOCS2400: Applied Social Research

DIRECTED COURSES – 3000 LEVEL

Complete 30 units from:

ENVS3001: Integrated Impact Assessment
ENVS3006: Sustainability: Theory and Practice
ENVS3007: Environmental Remediation
ENVS3008: Organisational Placement
GEOG3090: Society and Space
GEOG3300: Rethinking Development
GEOS3220: Coastal Environments and Processes
GEOS3280: Global Change and the Rise of Modern Environments
GEOS3340: Climate Change and Resource Management
ENVS3008: Organisational Placement
SCIE3500: Research and Work Integrated learning

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BACHELOR OF SCIENCE MAJORS

MATHEMATICS MAJOR

Students must complete MATH1110 as their Math Directed course

COMPULSORY COURSES

Complete the following compulsory courses:

MATH1120: Mathematics for Engineering, Science and Technology 2
MATH2242: Complex Analysis
MATH2310: Calculus of Science and Engineering
MATH2340: Linearity and Continuity
MATH2800: Ordinary Differential Equations

DIRECTED COURSES – 3000 LEVEL

Complete 30 units from:

MATH3205: Fourier Analysis
MATH3120: Algebra
MATH3700: Partial Differential Equations and Modelling
MATH3820: Numerical Methods
SCIE3500: Research Integrated Learning
STAT3800: Deterministic and Stochastic Optimisation

PSYCHOLOGY MAJOR

COMPULSORY COURSES

Complete the following compulsory courses:

PSYC1010: Psychology Introduction 1
PSYC1020: Psychology Introduction 2
PSYC2300: Cognitive Psychology
PSYC2400: Biological Psychology
PSYC3000: Advanced Research Methods and Stats in Psych
PSYC3800: Special Topics

DIRECTED COURSES – 3000 LEVEL

Complete 20 units from:

PSYC3001: Advanced Psychological Measurement
PSYC3301: Advanced Perception and Learning in Psychology
ENVS3005: Animal Behaviour

STATISTICS MAJOR

Students must complete MATH1110 as their Math Directed course

COMPULSORY COURSES

Complete the following compulsory courses:

MATH1120: Mathematics for Engineering, Science and Technology 2
STAT1300: Fundamentals of Statistics
STAT2000: Applied Statistics and Research Methods
STAT3030: Generalised Linear Models
STAT3040: Time Series Analysis
STAT3100: Systems Thinking for an Integrated Workforce
STAT3800: Deterministic and Stochastic Optimisation

DIRECTED COURSES – 2000 LEVEL

Complete 10 units from:

STAT2020: Predictive Analytics
STAT2300: Statistical Inference

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BACHELOR OF ARTS MAJORS

ENGLISH AND WRITING

DIRECTED COURSES

Major: choose 80 units from Directed Courses, with a minimum of 10 units at 1000 level and a minimum of 40 units at 3000 level.

Minor: choose 40 units from Directed Courses, with a minimum of 10 units at 1000 level and at least 20 units at 2000 or 3000 level.

GERMAN

DIRECTED COURSES

Major: choose 80 units from Directed Courses, with a minimum of 10 units at 1000 level and a minimum of 40 units at 3000 level.

Minor: choose 40 units from Directed Courses, with a minimum of 10 units at 1000 level and at least 20 units at 2000 or 3000 level.

HUMAN GEOGRAPHY AND THE ENVIRONMENT

COMPULSORY COURSES

Major: complete the following compulsory courses.

Minor: complete only the 1000 and 2000 level courses listed below.

GEOG1020: Introduction to Human Geography
GEOG2080: Cities and Regions
ENVS3006: Surviving the Anthropocene: Sustainability in the 21st Century
GEOG3090: Society and Space

DIRECTED COURSES

Major: choose 40 units from Directed Courses, with a minimum of 20 units at 3000 level.

Minor: choose 20 units from Directed Courses at 2000 or 3000 level.

FILM, MEDIA AND CULTURAL STUDIES

DIRECTED COURSES

Major: choose 80 units from Directed Courses, with a minimum of 10 units at 1000 level and a minimum of 40 units at 3000 level.

Minor: choose 40 units from Directed Courses, with a minimum of 10 units at 1000 level and at least 20 units at 2000 or 3000 level.

GLOBAL INDIGENOUS STUDIES

DIRECTED COURSES

Major: choose 80 units from Directed Courses, with a minimum of 10 units at 1000 level and a minimum of 40 units at 3000 level.

Minor: choose 40 units from Directed Courses, with a minimum of 10 units at 1000 level and at least 20 units at 2000 or 3000 level.

JAPANESE STUDIES (BEGINNER & INTERMEDIATE SEQUENCE)

DIRECTED COURSES

Major: choose 80 units from Directed Courses, with a minimum of 10 units at 1000 level and a minimum of 40 units at 3000 level.

Minor: choose 40 units from Directed Courses, with a minimum of 10 units at 1000 level and at least 20 units at 2000 or 3000 level.

FRENCH STUDIES (BEGINNER & INTERMEDIATE SEQUENCE)

DIRECTED COURSES

Major: choose 80 units from Directed Courses, with a minimum of 10 units at 1000 level and a minimum of 40 units at 3000 level.

Minor: choose 40 units from Directed Courses, with a minimum of 10 units at 1000 level and at least 20 units at 2000 or 3000 level.

HISTORY

DIRECTED COURSES

Major: choose 80 units from Directed Courses, with a minimum of 10 units at 1000 level and a minimum of 40 units at 3000 level.

Minor: choose 40 units from Directed Courses, with a minimum of 10 units at 1000 level and at least 20 units at 2000 or 3000 level.

LINGUISTICS

DIRECTED COURSES

Major: choose 80 units from Directed Courses, with a minimum of 10 units at 1000 level and a minimum of 40 units at 3000 level.

Minor: choose 40 units from Directed Courses, with a minimum of 10 units at 1000 level and at least 20 units at 2000 or 3000 level.

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BACHELOR OF ARTS MAJORS

POLITICS AND INTERNATIONAL RELATIONS

COMPULSORY COURSES

Complete the following compulsory courses:

POLI1010: Australian Politics and Government
POLI1020: Introduction to Politics
POLI2203: International Political Economy and Global Development
POLI3180: Politics, Policy and Government

DIRECTED COURSES

Choose 40 units from Directed Courses with a maximum of 20 units at 1000 level and a minimum of 40 units at 3000 level

PSYCHOLOGY STUDIES

COMPULSORY COURSES

Major: complete the following compulsory courses.

Minor: complete only the 1000 and 2000 level courses listed below.

PSYC1010: Psychology Introduction 1
PSYC1020: Psychology Introduction 2
PSYC2500: Introduction to Abnormal Behaviour
PSYC3500: Advanced Health Psychology
PSYC3700: Advanced Developmental Psychology and Developmental Psychopathology

DIRECTED COURSES

Major: choose 30 units from Directed Courses, with a minimum of 20 units at 3000 level.

Minor: choose 10 units from Directed Courses at 2000 or 3000 level.

SOCIOLOGY AND ANTHROPOLOGY

COMPULSORY COURSES

Major: complete the following compulsory courses.

Minor: complete only the 1000 and 2000 level courses listed below.

SOCA1010: Society and Culture: A Sociological Introduction
SOCA1020: What is Anthropology?
SOCS2200: Social Analysis: Key Perspectives in the Social Sciences
SOCS3200: Applied Social Research Project

DIRECTED COURSES

Major: choose 40 units from Directed Courses, with a minimum of 10 units at 3000 level.

Minor: choose 10 units from Directed Courses at 2000 or 3000 level.

PROGRAM PLAN

BACHELOR OF ARTS / BACHELOR OF SCIENCE

BACHELOR OF ARTS MINORS

ANCIENT HISTORY MINOR

DIRECTED COURSES

Choose 40 units from Directed Courses, with a minimum of 10 units at 1000 level and at least 20 units at 2000 or 3000 level.

CHINESE MINOR

COMPULSORY COURSES

Complete the following compulsory courses to fulfil the requirements of this minor.

CHIN1110: Beginner's Chinese I (for students with other language backgrounds)

CHIN1120: Beginner's Chinese II (for students with other language backgrounds)

CHIN2301: Intermediate Chinese I

CHIN2302: Intermediate Chinese II

GENDER AND SEXUALITY STUDIES MINOR

DIRECTED COURSES

Choose 40 units from Directed Courses, with a minimum of 10 units at 1000 level and at least 20 units at 2000 level.

INFORMATION TECHNOLOGY MINOR

DIRECTED COURSES

Choose 40 units from Directed courses, with a minimum of 10 units at 1000 level and at least 20 units at 2000 level.

STUDIES OF RELIGION MINOR

DIRECTED COURSES

Choose 40 units from Directed Courses, with a minimum of 10 units at 1000 level and at least 20 units at 2000 or 3000 level.

VIOLENCE STUDIES MINOR

DIRECTED COURSES

Choose 40 units from Directed Courses, with a minimum of 10 units at 1000 level and at least 20 units at 2000 level.

WRITING STUDIES MINOR

DIRECTED COURSES

Choose 40 units from Directed Courses, with a minimum of 10 units at 1000 level and at least 20 units at 2000 level