The Degree of Bachelor of Science (BSc – 360 points)

These regulations must be read in conjunction with the General Regulations for the University.

1. Version

These Regulations came into force on 1 January 2020.

2. Variations

In exceptional circumstances the Amo Matua, Pūtaiao | Executive Dean of Science or delegate may approve a personal programme of study which does not conform to these Regulations.

3. The structure of the qualification

(a) To qualify for the Degree of Bachelor of Science a student must:
   i. be credited with a minimum of 360 points towards the qualification; and
   ii. be credited with the course listed in Schedule C to these Regulations and
   iii. satisfy the requirements for a major as listed in Schedule S to these Regulations and may optionally satisfy the requirements for a minor as listed in Schedule S to these Regulations or those minors provided for in the General Conditions for Credit Regulations.

(b) At least 255 of the 360 points must be from courses listed in Schedule V of these Regulations; and up to 105 of the 360 points may be for courses from any degree of the University.

(c) In addition to these requirements a student must be credited with courses to the value of:
   i. at least 225 points above 100-level and
   ii. at least 90 points at 300-level.

4. Admission to the qualification

A student must satisfy the Admission Regulations for the University to be admitted to this qualification.

5. Subjects

(a) The Degree of Bachelor of Science must be awarded in at least one of the subject areas listed in Schedule S to the Regulations for this degree.

(b) This qualification may be endorsed in the following subject(s): Biosecurity, Biotechnology and Ecology. Requirements for these are given in the Schedule of Endorsements of these Regulations.

(c) For a student studying this qualification:
   i. Any given 200-level course can contribute to two majors in the same degree; but cannot contribute to both a major and a minor, and cannot contribute to two minors
   ii. Any given course at 300-level must contribute to only one major or minor

(d) In addition, this qualification may be awarded with a minor as stipulated in regulation 4(a) of the General Conditions for Credit

(e) Any major and minor must be in separate subject areas as listed in Schedule S.

6. Time limits

The qualification adheres to the General Regulations for the University with a time limit of 10 years.

7. Transfers of credit, substitutions and cross-credits

This qualification adheres to the Credit Recognition and Transfer Regulations, with the following stipulations:

(a) Cross-credits between the BE(Hons) and BSc

In order to be awarded both qualifications, a student who studies the BE(Hons) and BSc concurrently:

   i. must obtain 180 points above 100-level from the Schedule to these Regulations which have not been credited to the BE(Hons), or used to obtain exemption from a course in that degree. Of these points, at least 90 must be at 300-level and must include at least 60 points for a single subject major;
   ii. may also be required to complete 100-level prerequisite courses from the Schedule to these Regulations, if admitted directly into the BE(Hons) First Professional Year and their qualifications on entry to the University were not in appropriate subjects;
   iii. must have passed all subjects and met the requirements of a BE(Hons) to be eligible to graduate BSc under this cross credit Regulation.

(b) Cross Credits and Substitution between BSc and BForSc

A student for the BSc who is, or has been enrolled for BForSc must:

i. obtain 180 points above 100-level in courses selected from the Schedule to these Regulations which have not been credited or used to obtain exemption from the BForSc. Of these points, 90 must be from 300-level courses and at least 60 from a single subject major.
ii. A student must have met the requirements of a BForSc to be eligible to graduate BSc under this cross credit Regulation.

(c) Credit for the Bachelor of Nursing

A student who has completed a Bachelor of Nursing may be credited with up to 75 points at 100-level which will be considered as equivalent to University courses under Regulation 3(a).

8. Progression

This qualification adheres to the General Regulations for progression and direct entry with no additional stipulations.

9. Honours, Distinction and Merit

Honours, Distinction and Merit are not awarded for the qualification.

10. Exit and Upgrade Pathways to other Qualifications

(a) There are no advancing qualifications for this degree.

(b) A student for the BSc who has not met the requirements for the degree but who has satisfied all requirements for the Certificate in Science or Graduate Diploma in Science may apply to the Amo Matua, Pūtaiao | Executive Dean of Science or delegate to withdraw from the degree and be awarded the alternate qualification.

11. Transition regulation

A student who enrolled in the Degree of Bachelor of Science for the first time prior to 1 January 2018 is not required to include a course from Schedule C in their degree.

Schedule C: Compulsory Courses for the Degree of Bachelor of Science

For full course information, go to www.canterbury.ac.nz/courses

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
SCIE101	Science, Society and Me	15	S2	Campus	
			S2	Distance Learning	

Schedule S: Major and Minor requirements for the Degree of Bachelor of Science

Group 1: Major and Minor requirements

Mātai Kōkōrangi | Astronomy

Major

100-level

Required: ASTR112, PHYS101, PHYS102, MATH102, MATH103. PHYS101 is offered in Semesters 1 and 2 and PHYS102 is offered in Semester 2 and as a Summer Course.

Strongly recommended: COSC131.

200-level

Required: (1) ASTR211 or ASTR212; (2) PHYS285; (3) 45 points from PHYS201–209; (4) MATH201.

Strongly recommended: MATH202 and/or MATH203.

300-level

Required: (1) ASTR323 or ASTR325 or ASTR326; (2) PHYS310, ASTR381; (3) 15 points from PHYS311–313.

Required for postgraduate: A student intending to proceed to BSc(Hons) or MSc in Physics, Medical Physics or Astronomy should take (1) an additional two courses from 300-level PHYS or ASTR; and (2) an additional two courses from 300-level MATH or STAT. Preferred postgraduate preparation: Students should take PHYS326 in their BSc. Students who cannot take PHYS326 are recommended to take PHYS456 in their first year of postgraduate study.

Minor

A student intending to minor in Astronomy must be credited with the following:

At least 75 points in Astronomy or Physics, including at least 45 points at 200-level or above.

Mātai Matū Koiora | Biochemistry

Major

100-level

Required: BIOL111 (BCHM111) and BCHM112 (CHEM112).

Recommended: BIOL112, BIOL113, and CHEM111.

200-level

Required: BCHM202 (BIOL231), BCHM212 (CHEM212), BCHM222, BCHM253 (BIOL253) and either BCHM281, or CHEM281.

Recommended: BCHM206 (CHEM242).

300-level

Required: 60 points from BCHM301, BCHM302, BCHM305, BCHM306, BCHM338 and BCHM339.

Required for postgraduate study: BCHM381.

Recommended for honours: At least one of CHEM301–399, BIOL313, BIOL333, BIOL335, BIOL351, BIOL353, BIOL354.

Minor

A student intending to minor in Biochemistry must be credited with the following:

At least 75 points in Biochemistry including at least 45 points at 200-level or above.

Mātai Pūtaiao Koiora | Biological Sciences

Major

100-level

Required: BIOL111 (BCHM111) and BIOL112 and BIOL113 and STAT101 (or an excellence endorsement in NCEA Level 3 Mathematics).

Recommended: 15 points of 100-level Chemistry; and 15 points of 100-level Mathematics. A student who has not taken chemistry in Year 13 should take 100-level Chemistry (eg, CHEM114). A student who has not taken mathematics with calculus in Year 13 should take 100-level Mathematics (eg, MATH101).

200-level

Required: BIOL209, or equivalent background (eg, STAT201/222 or PSYC206).

Required for honours: Biotechnology: BIOL252 or BIOL254, and as specified below.

300-level

Required: at least 60 points from 300-level courses selected from: BCHM305, BCHM306, and BIOL courses.

Required for honours: at least 60 points from 300-level courses selected from: BCHM305, BCHM306, and BIOL courses, and including the courses as specified below:

Biotechnology: BIOL352 and at least 45 points from BIOL313, BIOL330, BIOL333, BIOL335

Cellular and Molecular Biology: at least 60 points from BCHM305, BCHM306, BIOL313, BIOL333, BIOL351, BIOL352

Ecology: 60 points from BIOL370–384; and BIOL309 or equivalent

Microbiology: BIOL313 and at least 45 points from BIOL330, BIOL333, BIOL335, BIOL352

A student who is considering 400-level study must normally have gained 90 points in 300-level BIOL.

A student admitted to the honours programme or intending to proceed to a master's degree should consider including BIOL309 (or equivalent).

Minor

A student intending to minor in Biology must be credited with the following:

At least 75 points in Biology including at least 45 points at 200-level or above.

Mātai Matū | Chemistry

Major

100-level

Required: CHEM111 and CHEM112 (BCHM112).

200-level

Required: CHEM211, CHEM212 (BCHM212), CHEM242 (BCHM206), CHEM251, either CHEM281 or BCHM281.

300-level

Required: 60 points from CHEM 300-level courses, excluding CHEM329 and CHEM330, and including at least one of CHEM381 and CHEM382.

Required for BSc(Hons) and MSc: 75 points from CHEM 300-level courses, excluding CHEM329 and CHEM330, and including at least one of CHEM381 and CHEM382.

Students may not complete a double major in Medicinal Chemistry and Chemistry.

Minor

A student intending to minor in Chemistry must be credited with the following:

At least 75 points in Chemistry, including CHEM111 and CHEM112 (BCHM112), and at least 45 points at 200-level or above.

Computer Science

Major

100-level

Required: COSC122, MATH120, MATH102, and one of (COSC121, COSC131).

Recommended: COSC101, STAT101.

200-level

Required: COSC261 and 30 points from: COSC262, COSC264, COSC265, ENCE260, SENG201.

300-level

Required: At least 60 points from the following list of courses: all COSC 300-level courses (except COSC366), ENCE360, ENCE361, SENG301, SENG302, SENG365, DATA301.

Minor

A student intending to minor in Computer Science must be credited with the following:

At least 75 points from the Computer Science courses in Schedule V to these Regulations including at least 45 points at 200-level or above.

Mātauranga Raraunga | Data Science

Not open to new enrolments in 2024.

Major

100-level

Required: COSC122, MATH102, MATH120, STAT101, and one of (COSC121, COSC131).

200-level

Required: COSC262, COSC265, DATA201, DATA203, and any one course from STAT211–299.

300-level

Required: COSC367, DATA301, MATH303, STAT318, STAT315. With the permission of the Kaihautū Hōtaka | Programme Director, a student who has a double major in Data Science and a second related subject may graduate with a minimum of 60 points from the list of required 300-level courses, one of which must be DATA301.

Minor

There is no minor in Data Science.

Economics

Major

A student has not been credited with the MATH or STAT prerequisite courses shown in Te Rārangi Akoranga | Course Catalogue may be admitted to courses if they have reached a standard satisfactory to the Tumuaki Tari | Head of Department in the prerequisites of other approved courses. Refer to the Economics Department for further information.

100-level

Required: ECON104 and ECON105.

Recommended: MATH102 and MATH103 and STAT101.

Required for honours: MATH102 and STAT101.

200-level

Required:

i. ECON202 or ECON207; and
ii. ECON203 or ECON208; and
iii. ECON201 or ECON206.

300-level

Required: At least 60 points of 300-level Economics.

Required for honours: ECON321, 324, and 326.

Note: A student who enrolled in the BSc prior to 2015 may graduate under the 2014 regulations.

Minor

As specified in Schedule S to the Bachelor of Commerce.

Mātai Pūtaiao Aronukurangi | Environmental Science

Major

100-level

Required: ENVR101, GEOG106, STAT101 or MATH102 or equivalent, plus a minimum of 30 points in a second major or as required by that major.

Recommended: SCIM101.

200-level

Required: ENVR209, ENVR210 and BIOL209 or equivalent, plus a minimum of 30 points in a second major or as required by that major.

300-level

Required: ENVR302, GEOG309, PSYC341 plus a minimum of 60 points in a second major or as required by that second major.

Minor

A student intending to minor in Environmental Science must be credited with the following:

STAT101, ENVR101, ENVR209, ENVR302 and at least 15 points at 200-level from ANTA201, BIOL274, CHEM247, GEOG201, GEOG211, GEOG215, GEOG222, GEOL246, HLTH214, SOIL203, WATR201, WATR203.

Finance

Major

100-level

Required: MATH101 or MATH102, and ACCT102.

200-level

Required: FINC201 and FINC203.

300-level

Required: At least 60 points of 300-level FINC courses, including at least 30 points from FINC301, FINC311 or FINC312.

Minor

As specified in Schedule S to the Bachelor of Commerce.

Pūhanga Tahua | Financial Engineering

Major

100-level

Required: ACCT102, COSC122, MATH102, MATH103, STAT101, and one of (COSC121, COSC131).

200-level

Required: ECON213, FINC201, (FINC203 or ECON207), MATH201, SENG201, (STAT211 or STAT221) and STAT213.

Recommended: INFO213.

300-level

Required: (FINC311 or FINC312), (FINC331 or ECON331) and (STAT317 or ECON323). Any other 300-level course from those listed in Schedule V for Financial Engineering.

Minor

There is no minor in Financial Engineering.

Geography

Major

100-level

Required: 30 points of 100-level Geography.

200-level

Required: 45 points of 200-level Geography.

300-level

Required: At least 60 points of 300-level Geography, including GEOG309.

Note: With the permission of the Tumuaki Kura | Head of School, a student who has a double major in Geography and Environmental Science must take GEOG309 plus a further 60 points of 300-level Geography.

Required for postgraduate study: Students intending to proceed to the BA(Hons), MA, BSc(Hons), PGDipSc, or MSc degree must have passed:

i. 90 points in 300-level courses approved by the Tumuaki Kura, Te Kura Aronukurangi | Head of the School of Earth and Environment (including GEOG309 and at least 30 other points in 300-level Geography courses), or
ii. 120 points at 300-level of which 60 points are in Geography and 60 points are in subjects approved by the Tumuaki Kura | Head of School.

Minor

A student intending to minor in Geography must be credited with the following:

At least 75 points in Geography, including at least 45 points at 200-level or above.

Mātai Aronuku | Geology

Major

100-level

Required: GEOL101 and GEOL102.

Required for honours:

Geology: 60 points from 100-level Astronomy, Biological Sciences, Chemistry, Computer Science, Environmental Science, Geography, Mathematics, Physics or Statistics.

200-level

Required: GEOL240, GEOL242, GEOL243, GEOL244.

Recommended: GEOL241.

300-level

Required: GEOL351, GEOL352 and an additional 30 points from 300-level Geology.

Recommended: an additional 15 to 30 points from 300-level Geology.

Required for BSc(Hons) in Geology, PGDipSc in Geology, or MSc in Geology or Professional Master of Engineering Geology (PMEG): a minimum of 75 points of 300-level GEOL, including GEOL351 and GEOL352 (105 points are recommended). At least 15 points each of 100-level MATH and 100-level STAT, or a demonstrably equivalent standard in Mathematics, are a prerequisite for entry to 400-level ENGE.

Minor

A student intending to minor in Geology must be credited with the following:

At least 75 points in Geology, including at least 45 points at 200-level or above.

Mātai Wetereo | Linguistics

Major

A student intending to complete the BSc with a major in Linguistics must be credited with at least 135 points in Linguistics, which must include the following:

100-level

Required: 30 points at 100-level.

200-level

Required: At least 45 points of 200-level Linguistics, which must include LING217 and LING212.

300-level

Required: 60 points at 300-level, which must include LING310.

Required for postgraduate study: An average grade of at least B in all Linguistics courses beyond 100-level. A student must have at least 15 points in a language other than English. The required 15 points in a language other than English may be satisfied by proficiency in a language other than English at the discretion of the Kairuruku Hōtaka | Programme Coordinator.

Minor

A student intending to minor in Linguistics must be credited with the following:

At least 75 points in Linguistics, including at least 45 points at 200-level or above.

Mathematical Sciences Education

Major

100-level

MATH102 and a further 15 points from 100-level COSC, DATA, MATH (excluding MATH110) or STAT courses

EDUC101 or EDUC103

Note: MATH199 may be used in place of MATH102

200-level

Required: EDMA201.

30 points from 200-level DATA, MATH, or STAT courses.

300-level

Required: EDMA301.

45 points from 300-level DATA, MATH, or STAT courses

Minor

There is no minor available in this subject.

Pāngarau | Mathematics

Major

100-level

Required: MATH103, MATH109, or MATH199.

200-level

Required: 45 points from MATH201, MATH202, MATH203, MATH220, and MATH240.

Note: EMTH210 may replace MATH201, and, EMTH211 may replace MATH203.

300-level

Required: 60 points from MATH301–394.

Required for honours: An additional 30 points from MATH301–394 or STAT301–394 or other approved courses.

Recommended for honours: MATH343.

Minor

A student intending to minor in Mathematics must be credited with the following:

At least 75 points in Mathematics including at least 45 points at 200-level or above.

Medicinal Chemistry

Major

100-level

Required: CHEM111, either CHEM112 or BCHM112, either BCHM111 or BIOL111, BIOL116.

200-level

Required: Either CHEM212 or BCHM212, either CHEM281 or BCHM281, either CHEM242 or BCHM206, and CHEM246.

300-level

Required: CHEM342, CHEM346, CHEM381, and CHEM347.

Students may not complete a double major in Medicinal Chemistry and Chemistry.

Minor

There is no minor in Medicinal Chemistry.

Whakaaroaro | Philosophy

Major

100-level

Recommended: 30 points of 100-level Philosophy (or equivalent).

Note: MATH130 may be counted as Philosophy points towards a BSc in Philosophy.

200-level

Required: At least 45 points of 200-level Philosophy (or equivalent) including PHIL233. A student may include HAPS201, HAPS202, HAPS203, or HAPS210.

300-level

Required: At least 60 points of 300-level Philosophy (or equivalent), including at least one of PHIL305, PHIL310, PHIL311, or PHIL317. A student may include HAPS302 or HAPS310.

Minor

A student intending to minor in Philosophy must be credited with the following:

At least 75 points in Philosophy, including at least 45 points at 200-level or above.

Mātai Ahupūngao | Physics

Major

100-level

Required: PHYS101, PHYS102, MATH102, MATH103. PHYS101 is offered in Semesters 1 and 2 and PHYS102 is offered in Semester 2 and as a Summer Course.

Strongly recommended: COSC131 or COSC121.

200-level

Required: (1) PHYS285; (2) 45 points from PHYS201–209; (3) MATH201.

Strongly recommended: MATH202 and/or MATH203.

300-level

Required: PHYS310, PHYS311, PHYS313, and PHYS381.

Notes:

1. A student who has taken PHYS204 is exempt from taking PHYS310, but must select an additional 15 points from PHYS301–379, ASTR301–379;

2. A student may be permitted by the Head of School to obtain a double major in Physics and Mathematics with PHYS381 replaced by PHYS326 as a required course.

Required for postgraduate study: A student intending to proceed to BSc(Hons) or MSc in Physics, Medical Physics, or Astronomy should take (1) an additional two courses from 300-level PHYS or ASTR; and (2) an additional two courses from 300-level MATH or STAT. Preferred postgraduate preparation: Students should take PHYS326 in their BSc. Students who cannot take PHYS326 are recommended to take PHYS456 in their first year of postgraduate study.

Minor

A student intending to minor in Physics must be credited with the following:

At least 75 points in Physics, including at least 45 points at 200-level or above.

Mātai Hinengaro | Psychology

Major

100-level

Required: PSYC105 and PSYC106.

Recommended: PSYC107 and SPSC114

200-level

Required: PSYC206 and at least an additional 45 points of Psychology at 200-level.

300-level

Note: With the permission of the Tumuaki Kura | Head of School, a student who has a double major in Psychology and a second related subject may graduate with a minimum of 60 points in PSYC 300-level courses.

Required: 75 points of 300-level PSYC courses.

PSYC375 (or equivalent) is required for postgraduate study in Psychology or Industrial and Organisational Psychology.

PSYC335 or PSYC379 (or equivalent) is required for the Postgraduate Diploma in Clinical Psychology.

Minor

A student intending to minor in Psychology must be credited with the following:

At least 75 points in Psychology, including at least 45 points at 200-level or above.

Tatauranga | Statistics

Major

100-level

Required: MATH103 or MATH199. Either of these courses can be replaced with DATA203.

200-level

Required: STAT213 plus 30 points of STAT201–294 including at least one of STAT211,STAT221.

300-level

Required: At least 60 points from STAT301–394 including at least 45 points from STAT313, STAT314, STAT317, STAT318, STAT319.

Required for entry to honours: An additional 30 points from MATH301–394 or STAT301–394, or other approved courses.

Minor

A student intending to minor in Statistics must be credited with the following:

At least 75 points in Statistics (or from other relevant subjects with the approval of the Tumuaki Kura | Head of School), including at least 45 points at 200-level or above.

Group 2: Endorsements - Closed to new enrolments

Biosecurity

To qualify for an endorsement in Biosecurity a student must be enrolled for a Bachelor of Science in Biological Sciences and must complete the 360 point requirement for the BSc.

Required courses

The following courses are required for the endorsement:

100-level

BIOL111 Cellular Biology and Biochemistry
BIOL112 Ecology, Evolution and Conservation
BIOL113 Diversity of Life **and**
CHEM114 Foundations of Chemistry **or**
BCHM112 Structure and Reactivity in Chemistry and Biochemistry
STAT101 Statistics 1

Total 100-level points required: 75 points

200-level

BIOL209 Introduction to Biological Data Analysis **or**
STAT201 Applied Statistics **or**
STAT202 Regression Modelling **and**
BIOL231 Foundations in Molecular Biology
BIOL270 Ecology (30 points)
BIOL271 Evolution
BIOL273 New Zealand Biodiversity and Biosecurity
BIOS201 Issues in New Zealand Biosecurity

Total 200-level points required: 105 points

300-level

BIOL332 Genetics and Evolution of Invasive Species
BIOL377 Global Change and Biosecurity **and**
BIOL352 Plant Development and Biotechnology

Total 300-level points required: 45 points

Recommended courses

Students will normally follow one of two pathways: a molecular/genetics pathway or an ecological/applied pathway. Recommended courses should be selected from:

Molecular/genetics pathway

100-level

LAWS101 The Legal System: Legal Method and Institutions

200-level

BIOL203 Introduction to Forensic Biology
BIOL213 Microbiology and Genetics
BIOL254 Principles of Plant Physiology
CHEM224 Analytical and Environmental Chemistry
ANTA201 Antarctica and Global Change
POLS206 Public Policy: An Introduction

300-level

BIOL309 Experimental Design and Data Analysis for Biologists
BIOL313 Advanced Molecular and Industrial Microbiology
BIOL330 Advanced Concepts in Genetics
BIOL333 Molecular Genetics
BIOL335 Bioinformatics and Genomics

Ecological/applied pathway

100-level

LAWS101 The Legal System
SCIM101 Science, Māori and Indigenous Knowledge

200-level

BIOL211 Insect Biology
BIOL212 Marine Biology
BIOL215 Plant Diversity and Systematics
FORE218 Forest Biology
ANTA201 Antarctica and Global Change
POLS206 Public Policy: An Introduction

300-level

BIOL305 Practical Field Botany
BIOL309 Experimental Design and Data Analysis for Biologists
BIOL371 Evolutionary Ecology
BIOL384 Marine Ecosystems
BIOL375 Freshwater Ecosystems
BIOL378 Population Ecology and Conservation
FORE 443 Biosecurity Risk Management
FORE 444 Sustaining Native Biodiversity on Private Land

Biotechnology

To qualify for an endorsement in Biotechnology a student must be enrolled for a Bachelor of Science in Biological Sciences and must complete the 360 point requirement for the BSc.

Required courses

The following courses are required for the endorsement:

100-level

BIOL111 Cellular Biology and Biochemistry
BIOL112 Ecology, Evolution and Conservation
BIOL113 Diversity of Life
BCHM112 Structure and Reactivity in Chemistry and Biochemistry
STAT101 Statistics 1

Total 100-level required points: 75 points

200-level

BIOL209 Introduction to Biological Data Analysis
BIOL213 Microbiology and Genetics
BIOL231 Foundations in Molecular Biology **or**
BCHM202 Molecular Genetics
BIOL271 Evolution

BIOL253 Cell Biology 1 **or**
BIOL254 Principles of Plant Physiology
Total 100-level required points: 75 points

300-level

BIOL352 Plant Development and Biotechnology **and**
BIOL313 Advanced Molecular and Industrial Microbiology
BIOL333 Molecular Genetics
and a minimum of 30 points from the following:

BIOL330 Advanced Concepts in Genetics
BIOL332 Genetics and Evolution of Invasive Species
BIOL335 Bioinformatics and Genomics
BIOL351 Cell Biology 2
BIOL371 Evolutionary Ecology
Total 300-level required points: 75 points

Recommended courses

100-level

MATH101 Introductory Mathematics with Applications **or**
MATH102 Mathematics
LAWS101 The Legal System
SCIM101 Science, Māori and Indigenous Knowledge
ENGR101 Foundations of Engineering

200-level

BIOS201 Issues in New Zealand Biosecurity
BIOL215 Plant Diversity and Systematics
BIOL250 Principles of Animal Physiology
BIOL273 New Zealand Biodiversity and Biosecurity
POLS206 Public Policy: An Introduction
BCHM222 Biochemistry B
BCHM281 Practical Biochemistry
PHIL249 Environmental Ethics

300-level

BCHM303 Special Topic: Toxicology
BIOL331/BCHM301 Biochemistry 3
SCIE301/302 Science and Entrepreneurship

Suggested pathways

A student will normally follow one of two pathways: an environmental pathway or a plant pathway. Recommended combinations of courses are:

Environmental Biotechnology

100-level

BIOL111 Cellular Biology and Biochemistry
BIOL112 Ecology, Evolution and Conservation
BIOL113 Diversity of Life
BCHM112 Structure and Reactivity in Chemistry and Biochemistry
STAT101 Statistics 1
Plus recommended courses from list above

200-level

BIOL209 Introduction to Biological Data Analysis
BIOL253 Cell Biology 1 **or**
BIOL254 Plant Developmental Biology
BIOL213 Microbiology and Genetics
BIOL231 Foundations in Molecular Biology
BIOL271 Evolution
BIOL215 Plant Diversity and Systematics **or**
BIOL273 NZ Biodiversity and Biosecurity
BCHM281 Practical Biochemistry
Plus recommended courses from lists above

300-level

BIOL313 Advanced Molecular and Industrial Microbiology
BIOL330 Advanced Concepts in Genetics
BIOL333 Molecular Genetics
BIOL334 Evolutionary Genetics
BIOL332 Genetics and Evolution of Invasive Species
BIOL371 Evolutionary Ecology
Plus recommended courses from lists above

Plant Biotechnology

100-level

BIOL111 Cellular Biology and Biochemistry
BIOL112 Ecology, Evolution and Conservation
BIOL113 Diversity of Life
BCHM112 Structure and Reactivity in Chemistry and Biochemistry
STAT101 Statistics 1
Plus recommended courses from list above

200-level

BCHM281 Practical Biochemistry
BIOL209 Introduction to Biological Data Analysis
BIOL213 Microbiology and Genetics
BIOL231 Foundations in Molecular Biology
BIOL254 Principles of Plant Physiology
BIOL253 Cell Biology 1
BIOL271 Evolution
Plus recommended courses from lists above

300-level

BIOL333 Molecular Genetics
BIOL334 Evolutionary Genetics
BIOL335 Bioinformatics and Genomics
BIOL352 Plant Development and Biotechnology
BIOL330 Advanced Concepts in Genetics
BIOL351 Cell Biology
Plus recommended courses from lists above

Ecology

To qualify for an endorsement in Ecology a student must be enrolled for a Bachelor of Science in Biological Sciences and must complete the 360 point requirement for the BSc.

Required courses

The following courses are required for the endorsement:

100-level

BIOL111 Cellular Biology and Biochemistry
BIOL112 Ecology, Evolution and Conservation
BIOL113 Diversity of Life
STAT101 Statistics 1

200-level

BIOL209 Introduction to Biological Data Analysis, **or**
STAT201 Applied Statistics, **or**
STAT202 Regression Modelling
BIOL270 Ecology
BIOL271 Evolution

300-level

BIOL309 Experimental Design and Data Analysis for Biologists

And at least 60 points from:

BIOL354 Animal Ecophysiology
BIOL371 Evolutionary Ecology
BIOL383 Behaviour
BIOL384 Marine Ecosystems
BIOL375 Freshwater Ecosystems
BIOL377 Global Change and Biosecurity
BIOL378 Population Ecology and Conservation
BIOL379 Sustaining Native Biodiversity in Primary Production Systems

Recommended courses

100-level

CHEM114 Foundations of Chemistry
GEOG106 Global Environmental Change
GEOG109 Forces in Nature
GEOL111 Planet Earth: An Introduction to Geology
GEOL112 Understanding Earth History

200-level

BIOL210 Vertebrate Biology
BIOL211 Insect Biology
BIOL212 Marine Biology
BIOL215 Plant Diversity
BIOL272 Principles of Animal Behaviour
BIOL273 New Zealand Biodiversity and Biosecurity
GEOG205 Introduction to Geographic Information Systems and Science

300-level

FORE444 Sustaining Native Biodiversity on Private Land
GEOG323 Geospatial Analysis in the Social and Environmental Sciences

Schedule V: Valid Courses for the Degree of Bachelor of Science

Accounting

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
ACCT311	Financial Accounting: Theory & Practice	15	S1	Campus	P: ACCT211 R: AFIS301, ACIS311, AFIS311, AFIS501.

Mātai Te Pou Tonga | Antarctic Studies

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
ANTA101	Antarctica	15	SU2	Distance Learning	R: INCO103, ANTA102 and ANTA103, ANTA112 and ANTA113
ANTA102	Antarctica: The Cold Continent	15	S1	Campus	
ANTA103	Antarctica: Life in the Cold	15	NO		
ANTA201	Antarctica and Global Change	15	S1	Campus	P: 30 points from 100-level Antarctic Studies, Biology, Geography or Geology courses

Mātai Ororongo | Audiology

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
HEAR243	Introduction to Audiologic Assessment and Management	15	S1	Campus	R: HEAR663

Mātai Kōkōrangi | Astronomy

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
ASTR109	The Cosmos: Birth and Evolution	15	S1	Campus	R: (1) PHYS109. (2) Students who have been credited with ASTR112 cannot subsequently be credited with ASTR109.
			S1	Distance Learning	
ASTR112	Astrophysics	15	S1	Campus	
ASTR211	Observational Astronomy	15	S2	Campus	P: (1) ASTR112; and (2) COSC131 or COSC121. R: ASTR231 RP: PHYS285
ASTR212	Dynamical Astronomy and the Solar System	15	NO		P: 30 points from ASTR112, MATH 100-level, STAT 100-level, PHYS101-102, or PHYS111. These prerequisites may be replaced by a high level of achievement in NCEA Level 3 Physics and Mathematics with Calculus or other background as approved by the Head of Department.
ASTR231	Observational Astronomy	30	NO		P: Subject to approval of the Head of Department. R: ASTR211
ASTR323	Stellar Structure and Evolution	15	NO		P: (1) 30 points from PHYS203-206, ASTR211-212; and (2) MATH103 or MATH109 or EMTH119 or MATH201. R: ASTR423 EQ: ASTR423
ASTR324	Special Topic	15	NO		P: (1) 30 points from PHYS203-206, ASTR211-212; (2) MATH103 or MATH109 or EMTH119 or MATH201, or Entry by permission of the Head of School, School of Physical and Chemical Sciences.

ASTR325	The Structure and Evolution of Galaxies	15	S2	Campus	P: (1) 30 points from PHYS203-206, ASTR211-212; and (2) MATH103 or MATH109 or EMTH119 or MATH201. R: PHYS325, ASTR425 EQ: PHYS325
ASTR332	Theoretical and Observational Cosmology	15	S1	Campus	P: (1) PHYS205 and PHYS203; and (2) MATH103 or MATH109 or EMTH119 or MATH201. R: ASTR422, ASTR322 RP: MATH202
ASTR381	Advanced Experiments in Physics and Astronomy	15	S2	Campus	P: (1) PHYS285; (2) 30 points from PHYS201-206 including either PHYS202 or PHYS205). (3) MATH103 or EMTH119 or MATH201. R: PHYS381 RP: MATH201 EQ: PHYS381
ASTR391	Introductory Astronomy Research	15	SU2	Campus	P: (1) MATH103 or MATH109 or equivalent (2) 44 points from PHYS200 or ASTR200 (3) Entry subject to a supervisor approved by the Head of Department, being available R: ASTR392, ASTR393
			S1	Campus	
			S2	Campus	

Biochemistry

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
BCHM111	Cellular Biology and Biochemistry	15	S1	Campus	R: BIOL111 and ENCH281 EQ: BIOL111
BCHM112	Structure and Reactivity in Chemistry and Biochemistry	15	S2	Campus	P: (1) NCEA: at least 14 credits NCEA Level 3 Chemistry, or (2) CIE: at least D grade in CIE AL Chemistry or A grade in CIE ASL Chemistry, or (3) IB: at least Grade 4 in IB HL Chemistry or Grade 6 in IB SL Chemistry, or (4) CHEM114, or at least B Grade in BRDG023. R: CHEM112 EQ: CHEM112
BCHM202	Foundations in Molecular Biology	15	S1	Campus	P: BCHM111 (BIOL111) or ENCH281. R: BIOL230, BIOL231, ENCH480 RP: CHEM112 or BCHM112 or CHEM114 EQ: BIOL231, ENCH480
BCHM206	Organic Chemistry	15	S2	Campus	P: CHEM212 or BCHM212 R: CHEM242 EQ: CHEM242
BCHM207	Special Topic	15	NO		P: Entry subject to approval of the Coordinator, Biochemistry
BCHM212	Chemical Reactivity	15	S1	Campus	P: BCHM112 (CHEM112) or ENCH241 R: CHEM212 EQ: CHEM212
BCHM222	BIOCHEMISTRY B - Metabolism; the reactions of molecules in cells	15	S2	Campus	P: BCHM221 or BCHM253 or BIOL253 R: BCHM201, ENCH323
BCHM253	Cell Biology I	15	S1	Campus	P: BIOL111 (BCHM111) or ENCH281. R: BIOL253 RP: 15 points of CHEM at 100-level EQ: BIOL253
BCHM281	Practical Biochemistry	15	S2	Campus	P: 1. CHEM111 and CHEM112 (BCHM112) or 2. CHEM212 R: CHEM281
BCHM303	Special Topic	15	NO		P: Entry subject to approval of the Coordinator, Biochemistry.

BCHM304	Special Topic	15	W	Campus	P: Entry subject to approval of the Coordinator, Biochemistry
BCHM305	Protein Science	15	S1	Campus	P: BCHM253/BIOL253 and BCHM222. R: BCHM301 RP: BCHM202/BIOL231, BCHM206/CHEM242, BCHM212/CHEM212.
BCHM306	Biochemical Pathology	15	S2	Campus	P: BCHM253/BIOL253 and BCHM222, and 15 points from BCHM206, BCHM212/CHEM212. R: BCHM301, BCHM302 RP: BCHM202/BIOL231.
BCHM335	Biochemical and Environmental Toxicology	15	NO		P: (1) CHEM244 or CHEM211 or CHEM281 or BCHM281, (2) BCHM111 (BIOL111) or ENCH281. R: BCHM302; CHEM325 RP: CHEM112 or BCHM112
BCHM338	Chemical Biology and Protein Chemistry	15	S1	Campus	P: CHEM212 or BCHM212 Recommended preparation: BCHM202 (BIOL231) R: CHEM325; BCHM302; CHEM338 RP: BCHM202 (BIOL231) EQ: CHEM338
BCHM339	Bioinorganic and Bioorganic Chemistry	15	S2	Campus	P: CHEM212 or BCHM212. R: CHEM339; CHEM325; BCHM302 RP: CHEM242 (BCHM206) EQ: CHEM339
BCHM381	Biochemical Techniques	15	S2	Campus	P: BCHM201 (if taken prior to 2005) or BCHM281 or CHEM281

Mātai Pūtaiao Koiora | Biological Sciences

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
BIOL111	Cellular Biology and Biochemistry	15	S1	Campus	R: ENCH281 and BCHM111 EQ: BCHM111
BIOL112	Ecology, Evolution and Conservation	15	S2	Campus	
BIOL113	Diversity of Life	15	S1	Campus	
BIOL116	Human Biology	15	S2	Campus	
BIOL209	Biological Data Analysis	15	S1	Campus	P: STAT101 or 15 points of 100-level MATH
BIOL210	Vertebrate Biology	15	S2	Campus	P: BIOL113
BIOL211	Insect Biology	15	NO		P: BIOL113
BIOL212	Marine Biology and Ecology	15	S1	Campus	P: BIOL112 and BIOL113
BIOL213	Microbiology	15	S2	Campus	P: BIOL111 or BIOL113. RP: BIOL231/BCHM202
BIOL215	Exploring Biodiversity: Principles and Methods of Systematics	15	S2	Campus	P: BIOL112 or BIOL113 (RP: BIOL111
BIOL231	Foundations in Molecular Biology	15	S1	Campus	P: BIOL111 (=BCHM111) or ENCH281 R: BCHM202, ENCH480, BIOL230 EQ: BCHM202, ENCH480
BIOL250	Principles of Animal Physiology	15	S1	Campus	P: BIOL111 (=BCHM111) or ENCH281
BIOL253	Cell Biology I	15	S1	Campus	P: BIOL111 (=BCHM111) or ENCH281 R: BCHM253 EQ: BCHM253
BIOL254	Principles of Plant Physiology	15	S2	Campus	P: BIOL111 (=BCHM111) or ENCH281 R: BIOL252

BIOL271	Evolution	15	S1	Campus	P: BIOL112
BIOL272	Principles of Animal Behaviour	15	S2	Campus	P: BIOL112 or PSYC105
BIOL274	Principles of Ecology	15	S1	Campus	P: BIOL112 R: BIOL270
			S1	Distance Learning	
BIOL275	Field Ecology	15	S1	Campus	C: BIOL274 R: BIOL270
BIOL305	Practical Field Botany	15	SU1	Campus	P: (1) BIOL215 or (2) BIOL273 or (3) BIOL270 or (4) BIOL274 and BIOL275 or (5) subject to approval by the Head of the School of Biological Sciences
BIOL306	Special Topic	15	NO		P: Entry subject to approval by the Head of School.
BIOL307	Special Topic	15	A	Campus	P: Entry subject to approval by the Head of School.
			S1	Campus	
			S2	Campus	
BIOL308	Special Topic	30	NO		P: Entry subject to approval by the Head of School.
BIOL309	Experimental Design and Data Analysis for Biologists	15	S2	Campus	P: BIOL209 or appropriate statistical background as determined by the Head of School
			S2	Distance Learning	
BIOL313	Advanced Microbiology	15	S2	Campus	P: BIOL213
BIOL333	Molecular Genetics	15	S1	Campus	P: BIOL231 (=BCHM202) R: BIOL330
BIOL334	Evolutionary Genetics and Genomics	15	S2	Campus	P: BIOL215 and BIOL271 R: BIOL330
BIOL336	Ecological and Evolutionary Models	15	S1	Campus	P: BIOL209 or 15 Points of 200-level COSC or DATA or EMTH or ENCE or PHYS or MATH or STAT. RP: BIOL270, BIOL271 or BIOL274
BIOL337	Bioinformatics	15	S1	Campus	P: BIOL231 and DATA201 and [STAT201 or STAT202 or BIOL209]
BIOL338	Bioinformatics Project	30	S2	Campus	P: BIOL337
BIOL351	Cell Biology 2	15	S2	Campus	P: BIOL253 (=BCHM253)
BIOL352	Plant Development and Biotechnology	15	S1	Campus	P: BIOL254 or BIOL253 (=BCHM253) or BIOL231 (=BCHM202)
BIOL354	Animal Ecophysiology	15	S2	Campus	P: BIOL250
BIOL355	Neurons, Hormones and Behaviour	15	S1	Campus	P: BIOL250 RP: BIOL272
BIOL371	Evolutionary Ecology	15	S1	Campus	P: BIOL271
BIOL375	Freshwater Ecosystems	15	S2	Campus	P: BIOL209 and either (1) BIOL270 or (2) BIOL274 and BIOL275
BIOL377	Global Change Ecology and Biosecurity	15	S1	Campus	P: BIOL209 and BIOL274
BIOL378	Population Ecology and Conservation	15	S1	Campus	P: BIOL209 and either (1) BIOL270 or (2) BIOL274 and BIOL275
BIOL383	Behavioural Ecology	15	S1	Campus	P: BIOL209 and BIOL272 R: BIOL373
BIOL384	Marine Ecosystems	15	S2	Campus	P: (1) BIOL209, (2) BIOL212, and (3) BIOL274 R: BIOL374
PSYC215	Introductory Cognitive and Behavioural Neuroscience	15	S2	Campus	P: P: PSYC105 and PSYC106 R: PSYC333 RP: PSYC107 or ARTS102

Biosecurity

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
BIOS201	Issues in New Zealand Biosecurity	15	S2	Campus	P: 60 points at 100-level R: BIOS101

Mātai Matū | Chemistry

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
CHEM111	Chemical Principles and Processes	15	S1	Campus	P: (1) NCEA: at least 14 credits NCEA Level 3 Chemistry, or (2) CIE: at least D grade in CIE AL Chemistry or A grade in CIE ASL Chemistry, or (3) IB: at least Grade 4 in IB HL Chemistry or Grade 6 in IB SL Chemistry, or (4) CHEM114, or at least B Grade in BRDG023 or TRNS006.
			S2	Campus	
CHEM112	Structure and Reactivity in Chemistry and Biochemistry	15	S2	Campus	P: (1) NCEA: at least 14 credits NCEA Level 3 Chemistry, or (2) CIE: at least D grade in CIE AL Chemistry or A grade in CIE ASL Chemistry, or (3) IB: at least Grade 4 in IB HL Chemistry or Grade 6 in IB SL Chemistry, or (4) CHEM114, or at least B Grade in BRDG023 or TRNS006. R: BCHM112 EQ: BCHM112
CHEM114	Foundations of Chemistry	15	S1	Campus	R: (1) NCEA: 14 credits NCEA Level 3 Chemistry, or (2) CIE: at least D grade in CIE AL Chemistry or A grade in CIE ASL Chemistry, or (3) IB: at least Grade 4 in IB HL Chemistry or Grade 6 in IB SL Chemistry, or (4) at least B Grade in BRDG 022 or BRDG 023. Students who have been credited with any of CHEM111, CHEM112 or BCHM112 cannot subsequently be credited with CHEM114. Concurrent enrolment in CHEM114 and CHEM111 is not permitted.
CHEM211	Molecules	15	S1	Campus	P: CHEM111
CHEM212	Chemical Reactivity	15	S1	Campus	P: CHEM112 or BCHM112 or ENCH241 R: BCHM212 EQ: BCHM212
CHEM242	Organic Chemistry	15	S2	Campus	P: CHEM212 or BCHM212 R: BCHM206 EQ: BCHM206
CHEM245	Special Topic	15	NO		P: CHEM211 and one of CHEM241 and 243. R: Restricted against CHEM251 and 255, and cannot be taken if both of CHEM241 and 243 have been credited.
CHEM246	Introduction to Medicinal Chemistry	15	S2	Campus	P: CHEM212 or BCHM212
CHEM247	Analytical Chemistry	15	S1	Campus	P: CHEM111 or CHEM112 (BCHM112)
CHEM251	Foundations of Materials Science and Nanotechnology	15	S2	Campus	P: CHEM211 or (CHEM111 and PHYS102) R: CHEM241 and CHEM245
CHEM255	Contemporary Chemistry: Technology, Environment, and Health	15	NO		P: 30 points from CHEM111, CHEM112, BCHM112, CHEM211 and CHEM212. R: CHEM245 RP: CHEM281
CHEM281	Practical Chemistry	15	S1	Campus	P: 1. CHEM111 and CHEM112 (BCHM112) or 2. CHEM212 R: BCHM281

CHEM327	Special Topic	15	S2	Campus	P: Entry subject to approval of the Head of Department.
CHEM328	Special Topic	15	S2	Campus	P: Entry subject to approval of the Head of Department.
CHEM330	Introductory Research in the Chemical Sciences	15	SU2	Campus	P: Either: CHEM281 or BCHM281, plus 45 points from 200-level CHEM, BCHM212, BCHM206 + GPA >8, Or: CHEM281 or BCHM281, CHEM381 or CHEM382, + 45 points from 200-level CHEM, BCHM212, BCHM206. With permission of the HoS, CHEM382 may be taken concurrently.
			S1	Campus	
			S2	Campus	
CHEM333	Chemical Physics and Spectroscopy	15	S2	Campus	P: CHEM251 or CHEM243
CHEM335	Organometallic Chemistry and Catalysis	15	S2	Campus	P: CHEM251 or CHEM241 R: CHEM321
CHEM336	Supramolecular Chemistry and Molecular Engineering	15	S1	Campus	P: CHEM242 (BCHM206) or CHEM251 R: CHEM322
CHEM337	Organic Synthesis	15	S2	Campus	P: CHEM242 or BCHM206 R: CHEM322
CHEM338	Chemical Biology and Protein Chemistry	15	S1	Campus	P: CHEM212 or BCHM212 R: BCHM338, CHEM325, BCHM302 RP: BCHM202 (BIOL231) EQ: BCHM338
CHEM339	Bioinorganic and Bioorganic Chemistry	15	S2	Campus	P: CHEM212 or BCHM212. R: BCHM339, CHEM325, BCHM302 RP: CHEM242 or BCHM206 EQ: BCHM339
CHEM340	Environmental Chemistry and Toxicology	15	S1	Campus	P: 15 points from CHEM281, BCHM281 or CHEM247, plus 15 points from ENVR201, CHEM211, CHEM212, BCHM212, CHEM255 or CHEM251 R: CHEM324
CHEM342	Aromatic, heterocyclic, and pharmaceutical chemistry	15	S1	Campus	P: CHEM242 or BCHM206 R: CHEM322, CHEM362
CHEM343	Materials Science and Nanotechnology	15	S1	Campus	P: CHEM251 or CHEM243
CHEM346	Contemporary Medicinal Chemistry	15	S1	Campus	P: CHEM246. RP: CHEM212, CHEM242
CHEM347	Drug Discovery and Development	15	S2	Campus	P: CHEM342, CHEM346. RP: CHEM212, CHEM242
CHEM381	Advanced Synthetic Techniques	15	S1	Campus	P: (CHEM281 or BCHM281) and CHEM212. RP: Additional 30 points from CHEM211, CHEM242 and CHEM251.
CHEM382	Energy, Environmental and Materials Chemistry Lab	15	S2	Campus	P: (CHEM281 or BCHM281) and (CHEM211 or CHEM251 or (CHEM111 and CHEM247)). RP: 30 points from CHEM211 - CHEM255.

Computer Science

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
COSC101	Working in a Digital World	15	S1	Campus	R: COSC110, DIGI101 EQ: DIGI101
COSC121	Introduction to Computer Programming	15	S1	Campus	R: COSC131
			S2	Campus	
COSC122	Introduction to Computer Science	15	SU2	Campus	P: COSC121 or COSC131
			S2	Campus	

COSC131	Introduction to Programming for Engineers	15	S1 S2	Campus Campus	P: 1) MATH101, or 2) NCEA 14 Credits (18 strongly recommended) at level 3 Mathematics (including the standards 'Apply differentiation methods in solving problems (91578)' and 'Apply integration methods in solving problems (91579)'), or 3) Cambridge: D at A level or an A at AS level in Mathematics, or 4) IB: 4 at HL or 5 at SL in Mathematics, or 5) approval of the Head of Department based on alternative prior learning. R: COSC121
COSC241	Special Topic	15	NO		P: Entry subject to approval by the Head of Department.
COSC242	Special Topic	15	NO		P: Entry subject to approval by the Head of Department.
COSC243	Special Topic	15	NO		P: Entry subject to approval by the Head of Department.
COSC260	Turing: From the Computer Revolution to the Philosophy of AI	15	S2 S2	Campus Distance Learning	P: Any 15 points at 100-level in PHIL, COSC, LING, MATH, or PSYC, or any 60 points at 100-level from the Schedule V of the BA or the BSc. R: PHIL250 EQ: PHIL250
COSC261	Formal Languages and Compilers	15	S1	Campus	P: (1) COSC121 or COSC131; (2) COSC122; (3) MATH120
COSC262	Algorithms	15	S1	Campus	P: (1) COSC121 or COSC131; (2) COSC122; RP: MATH120
COSC264	Introduction to Computer Networks and the Internet	15	S2	Campus	P: (1) COSC121 or COSC131; (2) COSC122; (3) EMTH119 or (MATH102 and MATH120) or (MATH102 and STAT101)
COSC265	Relational Database Systems	15	S2	Campus	P: COSC121 or COSC131 or INFO125
COSC362	Data and Network Security	15	S2	Campus	P: COSC264 or MATH324 or MATH220. R: LAWS306
COSC363	Computer Graphics	15	S1	Campus	P: (1) ENCE260, (2) 30 points of 200-level Computer Science, (3) 15 points of 100-level MATH/STAT/EMTH (MATH120) recommended). MATH101 is not acceptable.
COSC364	Internet Technology and Engineering	15	S1	Campus	P: COSC264
COSC366	Research Project	15	SU2	Campus	P: (1)45 points of 200-level Computer Science (2) 30 points from Mathematics, Statistics or Engineering Mathematics or 15 points of Math/Stat (MATH120 recommended) and COSC262. MATH101 is not acceptable. (3) approval of the Head of Department RP: COSC110 OR COSC101, ENCE260, COSC261, COSC262, SENG201
COSC367	Artificial Intelligence	15	S2	Campus	P: COSC262
COSC368	Human-Computer Interaction	15	S2	Campus	P: (1) COSC121 or COSC131; and (2) 30 points from COSC261, COSC262, COSC264, COSC265, ENCE260, SENG201; and (3) 15 points of MATH/EMTH/STAT/PSYC206 (excluding MATH101 and MATH110) RP: COSC101
COSC371	Special Topic	15	NO		P: Subject to approval by the Head of Department.
COSC372	Special Topic	15	NO		P: Subject to approval by the Head of Department.

DATA301	Big Data Computing and Systems	15	S1	Campus	P: COSC262
ENCE260	Computer Systems	15	S2	Campus	P: COSC121 or COSC131 R: ENEL206; both COSC208/ENCE208 and COSC221/ENCE221
ENCE360	Operating Systems	15	S2	Campus	P: ENCE260. R: COSC321 RP: COSC110 or COSC101, COSC262.
ENCE361	Embedded Systems 1	15	S1	Campus	P: ENCE260 R: ENEL353, ENEL323, COSC361, ELEC361, ENEL340
SENG201	Software Engineering I	15	S1	Campus	P: (1) COSC121 or COSC131; (2) COSC122. Recommended preparation: 15 points from MATH, STAT or EMTH. MATH120/STAT101 are strongly recommended. RP: RP: 15 points from MATH, STAT or EMTH. MATH120/STAT101 are strongly recommended.
SENG301	Software Engineering II	15	S1	Campus	P: SENG201. RP: ENCE260 or COSC262.
SENG302	Software Engineering Group Project	30	W	Campus	P: SENG201 and COSC265 C: SENG301
SENG303	Mobile Application Design and Development	15	S2	Campus	P: SENG201
SENG365	Web Computing Architectures	15	S1	Campus	P: COSC265 or two courses out of (INFO223, INFO253, INFO263). R: COSC365 RP: SENG 201 is strongly recommended.

Mātauranga Raraunga | Data Science

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
COSC101	Working in a Digital World	15	S1	Campus	R: COSC110, DIGI101 EQ: DIGI101
COSC121	Introduction to Computer Programming	15	S1	Campus	R: COSC131
			S2	Campus	
COSC122	Introduction to Computer Science	15	SU2	Campus	P: COSC121 or COSC131
			S2	Campus	
COSC262	Algorithms	15	S1	Campus	P: (1) COSC121 or COSC131; (2) COSC122; RP: MATH120
COSC265	Relational Database Systems	15	S2	Campus	P: COSC121 or COSC131 or INFO125
COSC367	Artificial Intelligence	15	S2	Campus	P: COSC262
DATA201	Data Wrangling	15	S2	Campus	P: 15 points of 100-level COSC, DATA, MATH, or STAT or INFO125
DATA301	Big Data Computing and Systems	15	S1	Campus	P: COSC262
MATH101	Methods of Mathematics	15	S1	Campus	R: Students who have been credited with any of EMTH118, EMTH119, MATH102 or MATH103, cannot subsequently be credited with MATH101.
			W	Campus	
			S2	Campus	
MATH102	Mathematics 1A	15	S1	Campus	P: 1. MATH101, or 2. NCEA 14 Credits at level 3 Mathematics, or 3. Cambridge: D at A level or an A at AS level in Mathematics, or 4. IB: 4 at HL or 5 at SL in Mathematics, or 5. Approval of the Head of School based on alternative prior learning. R: MATH108, MATH199, EMTH118
			S2	Campus	

MATH120	Discrete Mathematics	15	SU2	Campus	P: 1. MATH101 or MATH102 or EMTH118, or 2. NCEA 14 Credits (18 strongly recommended) at level 3 Mathematics, or 3. Cambridge: D at A level or an A at AS level in Mathematics, or 4. IB: 4 at HL or 5 at SL in Mathematics, or 5. approval of the Head of School based on alternative prior learning. R: MATH115
			S2	Campus	
MATH203	Linear Algebra	15	S1	Campus	P: MATH103 or EMTH119 or MATH199 R: MATH252, MATH254, EMTH203, EMTH204, EMTH211, DATA203
MATH303	Applied Matrix Algebra	15	S2	Campus	P: One of MATH203, EMTH211, or DATA203 R: MATH352, EMTH412
SENG201	Software Engineering I	15	S1	Campus	P: (1) COSC121 or COSC131; (2) COSC122. Recommended preparation: 15 points from MATH, STAT or EMTH. MATH120/STAT101 are strongly recommended. RP: RP: 15 points from MATH, STAT or EMTH. MATH120/STAT101 are strongly recommended.
STAT101	Statistics 1	15	SU2	Campus	R: STAT111, STAT112, DIGI103 EQ: STAT111, STAT112, DIGI103
			S1	Campus	
			S2	Campus	
STAT211	Random Processes	15	S1	Campus	P: Either a) MATH199; or b) 15 points from MATH102 or EMTH118, and another 15 points from 100-level STAT, DATA, MATH, or EMTH (excluding MATH101 and MATH110) R: STAT216
STAT213	Statistical Inference	15	S2	Campus	P: (1) one of MATH102, MATH199 or EMTH118; and (2) one of STAT101, DATA101, STAT211, EMTH119, or EMTH210 R: STAT214
STAT221	Introduction to Statistical Computing Using R	15	S2	Campus	P: Either a) MATH199; or b) 15 points from MATH102 or EMTH118, and another 15 points from 100-level STAT, DATA, MATH, or EMTH (excluding MATH101 and MATH110) R: STAT218
STAT315	Multivariable Statistical Methods and Applications	15	S1	Campus	P: 15 points from STAT200-299 and a further 15 points from DATA200-299 or STAT200-299.
STAT318	Data Mining	15	S1	Campus	P: 15 points from MATH102, EMTH118 or MATH199; and another 30 points from 200-level STAT, COSC, DATA, MATH or EMTH
STAT319	Generalised Linear and Multivariate Models	15	S2	Campus	P: 30 points from STAT202-299

Economics

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
ECON104	Introduction to Microeconomics	15	S1	Campus	R: ECON199
			S2	Campus	
ECON105	Introduction to Macroeconomics	15	S1	Campus	
			S2	Campus	
ECON199	Introduction to Microeconomics	15	X	Distance Learning	P: Subject to approval of the Head of Department. R: ECON104
ECON206	Intermediate Macroeconomics	15	S2	Campus	P: ECON104 and ECON105

ECON207	Intermediate Microeconomics - Households and Government	15	S2	Campus	P: ECON104
ECON208	Intermediate Microeconomics - Firms and Markets	15	S1	Campus	P: ECON104
ECON213	Introduction to Econometrics	15	S1	Campus	P: (1) ECON104 or ECON105; and (2) 15 points from STAT. R: ECON214 RP: MATH101 or Year 13 Math with Calculus.
ECON214	Data Analytics for Business Economics	15	S1	Campus	P: (1) ECON104 or ECON105; and (2) 15 points from STAT R: ECON 213
ECON222	International Trade	15	S2	Campus	P: ECON104
ECON223	Introduction to Game Theory for Business, Science and Politics	15	SU2	Campus	P: Any 60 points
ECON225	Environmental Economics	15	S1	Campus	P: ECON104
ECON228	Study Tour to South America	15	NO		P: (1) ECON 104 (2) Subject to the Head of Department approval.
ECON310	Economic Thinking for Business	15	NO		P: ECON208
ECON314	Economic Analysis of "Big Data"	15	NO		P: (1) ECON105 ; and (2) ECON213 or ECON214
ECON321	Microeconomic Analysis	15	S1	Campus	P: (1) ECON207; and (2) MATH102 or MATH199; and (3) 15 points from STAT RP: ECON 208
ECON323	Time Series Methods	15	S2	Campus	P: (1) ECON213; and (2) ECON207; and (3) MATH102 R: FINC323, STAT317 EQ: FINC323, STAT317
ECON324	Econometrics	15	S1	Campus	P: (1) ECON213 or STAT202; and (2) MATH102 or MATH199
ECON325	Advanced Macroeconomics	15	S2	Campus	P: (1) ECON206; and (2) MATH102; and (3) ECON207 or ECON208
ECON326	Macro and Monetary Economics	15	S1	Campus	P: (1) ECON206; (2) MATH102 or MATH199. RP: ECON207
ECON327	Economic Analysis of Law	15	NO		P: ECON207
ECON329	Industrial Organisation	15	S1	Campus	P: ECON 207 or ECON 208 RP: ECON 208
ECON330	Strategic Behaviour of Firms	15	NO		P: ECON208
ECON331	Financial Economics	15	S2	Campus	P: (1) FINC201; and (2) MATH102 or MATH199; C: ECON207 R: FINC331 RP: MATH103 EQ: FINC331
ECON332	Economics and Psychology	15	NO		P: ECON207
ECON333	Experimental Economics	15	NO		P: ECON207
ECON334	Labour Economics	15	NO		P: ECON 208. RP: ECON 206
ECON335	Public Economics	15	S1	Campus	P: ECON 207 RP: ECON 208
ECON338	Health Economics Overview	15	S2	Campus	P: ECON 207 RP: ECON 208
ECON340	Development Economics	15	S2	Campus	P: ECON 207 or ECON 208 RP: ECON 208

ECON341	Economics of Education	15	NO		P: ECON207 or ECON208
ECON342	Economic History	15	NO		P: (1) ECON104; and (2) ECON105; and (3) ECON206 or ECON207
ECON343	The Economics of Innovation, Creativity and Intellectual Property	15	NO		P: ECON208 RP: MATH102 or MATH199
ECON344	International Finance	15	S2	Campus	P: ECON206 or FINC201 or FINC203 R: ECON 210 and FINC 315 and FINC 344 RP: 15 points in MATH or Year 13 Math with Calculus EQ: FINC344
ECON345	The Economics of Risk and Insurance	15	NO		P: ECON 207 RP: ECON 208 EQ: FINC 345
ECON346	Special Topic: Economic Cost-Benefit Analysis	15	S2	Campus	P: ECON207
ECON390	Internship or Consultancy Project	15	SU2	Campus	P: (1) ECON207 or ECON208; and (2) Subject to the Head of Department approval R: FINC390, ARTS395, PACE395
			S1	Campus	
			S2	Campus	

Engineering

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
ENGR101	Foundations of Engineering	15	S1	Campus	
			S2	Campus	
ENGR102	Engineering Mechanics	15	SU2	Campus	P: EMTH118 C: EMTH119, PHYS101
			S2	Campus	
			S2	Distance Learning	

Mātai Pūtaiao Aronukurangi | Environmental Science

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
BIOL209	Biological Data Analysis	15	S1	Campus	P: STAT101 or 15 points of 100-level MATH
ENVR101	Introduction to Environmental Science	15	S1	Campus	
ENVR209	Environmental Science and Resource Management	15	S2	Campus	P: (ENVR101 and GEOG106) or (GEOG110 and GEOG106) and 15 points of CHEM, GEOL or BIOL R: GEOG206, GEOG209 and ENVR201 EQ: GEOG209
ENVR210	Practical Environmental Science and Management	15	S2	Campus	P: (ENVR101 and GEOG106) and 15 points from CHEM111, CHEM114 or BIOL112 C: ENVR209/GEOG209 R: ENVR201 and GEOG206
ENVR301	Environmental Science: Cities and Coasts	30	NO		P: ENVR201
ENVR356	Field-focused Research Methods in Environmental Science	30	X	Campus	P: Enrolment in the Frontiers Abroad programme and Head of Department approval. R: GEOL356. This course is not open to non-Frontiers Abroad students RP: Completion of course(s) at home institution in the broader field of Earth Systems Science and Environmental Science and Studies.
			X2	Campus	
GEOG106	Global Environmental Change	15	S2	Campus	R: GEOG103

GEOG309	Research for Resilient Environments and Communities	30	S2	Campus	P: 30 points of GEOG at 200-level, or ENVR209/ GEOG209 and ENVR210 R: GEOG204, GEOG303
MATH102	Mathematics 1A	15	S1	Campus	P: 1. MATH101, or 2. NCEA 14 Credits at level 3 Mathematics, or 3. Cambridge: D at A level or an A at AS level in Mathematics, or 4. IB: 4 at HL or 5 at SL in Mathematics, or 5. Approval of the Head of School based on alternative prior learning. R: MATH108, MATH199, EMTH118
			S2	Campus	
SCIM101	Science, Māori and Indigenous Knowledge	15	S2	Campus	R: MAOR172 EQ: MAOR172
STAT101	Statistics 1	15	SU2	Campus	R: STAT111, STAT112, DIGI103 EQ: STAT111, STAT112, DIGI103
			S1	Campus	
			S2	Campus	

Finance

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
FINC101	Personal Finance	15	S2	Campus	
FINC201	Business Finance	15	S1	Campus	P: (1) ACCT102; and (2) STAT101; and (3) a further 30 points R: FINC202, AFIS204 RP: Students without a mathematics background equivalent to NCEA Level 2 should pass MATH101 before enrolling in this course. EQ: AFIS204
			S2	Campus	
FINC203	Financial Markets, Institutions and Instruments	15	S1	Campus	P: (1) STAT101; and (2) A further 45 points. R: AFIS214 EQ: AFIS214
FINC205	Quantitative Finance	15	NO		P: (1) MATH102 or MATH199; and (2) STAT101 RP: MATH103
FINC301	Corporate Finance Theory and Policy	15	S2	Campus	P: FINC201 C: FINC203
FINC302	Applied Corporate Finance	15	NO		P: (1) FINC201 and FINC203; and (2) MATH101 or MATH102 or MATH199
FINC305	Financial Modelling	15	S1	Campus	P: (1) FINC201; and (2) MATH101 or MATH102 or MATH199 C: FINC203 or MATH103 R: FINC616
FINC308	Applied Financial Analysis and Valuation	15	NO		P: FINC201 C: FINC203
FINC311	Investments	15	S1	Campus	P: (1) FINC201; and (2) MATH101 or MATH102 or MATH199 C: FINC203 or MATH103
FINC312	Derivative Securities	15	S1	Campus	P: (1) FINC201; and (2) MATH101 or MATH102 or MATH199 C: FINC203 or MATH103 R: FINC612
FINC316	Fixed Income Securities	15	NO		P: (1) FINC201 and FINC203; and (2) MATH102 or MATH199
FINC323	Time Series Methods	15	NO		P: (1) ECON213; and (2) ECON207; and (3) MATH102 R: STAT317, ECON323 EQ: ECON323, STAT317

FINC331	Financial Economics	15	S2	Campus	P: (1) FINC201; and (2) MATH102 or MATH199; C: ECON207 R: ECON331 RP: MATH103 EQ: ECON331
FINC344	International Finance	15	S2	Campus	P: ECON206 or FINC201 or FINC203 R: FINC315, ECON344, ECON210 RP: 15 points in MATH or Year 13 Math with Calculus EQ: ECON344
FINC345	The Economics of Risk and Insurance	15	NO		P: ECON 207 RP: ECON 208 EQ: ECON345
FINC390	Internship or Consultancy Project	15	SU2	Campus	P: (1) FINC201 and FINC203 (2) Subject to approval of the Head of Department R: ECON390, ARTS395, PACE395
			S1	Campus	
			S2	Campus	

Financial Engineering

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
COSC121	Introduction to Computer Programming	15	S1	Campus	R: COSC131
			S2	Campus	
COSC122	Introduction to Computer Science	15	SU2	Campus	P: COSC121 or COSC131
			S2	Campus	
COSC262	Algorithms	15	S1	Campus	P: (1) COSC121 or COSC131; (2) COSC122; RP: MATH120
COSC367	Artificial Intelligence	15	S2	Campus	P: COSC262
ECON104	Introduction to Microeconomics	15	S1	Campus	R: ECON199
			S2	Campus	
ECON105	Introduction to Macroeconomics	15	S1	Campus	
			S2	Campus	
ECON207	Intermediate Microeconomics - Households and Government	15	S2	Campus	P: ECON104
ECON208	Intermediate Microeconomics - Firms and Markets	15	S1	Campus	P: ECON104
ECON213	Introduction to Econometrics	15	S1	Campus	P: (1) ECON104 or ECON105; and (2) 15 points from STAT. R: ECON214 RP: MATH101 or Year 13 Math with Calculus.
ECON321	Microeconomic Analysis	15	S1	Campus	P: (1) ECON207; and (2) MATH102 or MATH199; and (3) 15 points from STAT RP: ECON 208
ECON323	Time Series Methods	15	S2	Campus	P: (1) ECON213; and (2) ECON207; and (3) MATH102 R: FINC323, STAT317 EQ: FINC323, STAT317
ECON324	Econometrics	15	S1	Campus	P: (1) ECON213 or STAT202; and (2) MATH102 or MATH199
ECON331	Financial Economics	15	S2	Campus	P: (1) FINC201; and (2) MATH102 or MATH199; C: ECON207 R: FINC331 RP: MATH103 EQ: FINC331

FINC201	Business Finance	15	S1 S2	Campus Campus	P: (1) ACCT102; and (2) STAT101; and (3) a further 30 points R: FINC202, AFIS204 RP: Students without a mathematics background equivalent to NCEA Level 2 should pass MATH101 before enrolling in this course. EQ: AFIS204
FINC203	Financial Markets, Institutions and Instruments	15	S1	Campus	P: (1) STAT101; and (2) A further 45 points. R: AFIS214 EQ: AFIS214
FINC205	Quantitative Finance	15	NO		P: (1) MATH102 or MATH199; and (2) STAT101 RP: MATH103
FINC305	Financial Modelling	15	S1	Campus	P: (1) FINC201; and (2) MATH101 or MATH102 or MATH199 C: FINC203 or MATH103 R: FINC616
FINC311	Investments	15	S1	Campus	P: (1) FINC201; and (2) MATH101 or MATH102 or MATH199 C: FINC203 or MATH103
FINC312	Derivative Securities	15	S1	Campus	P: (1) FINC201; and (2) MATH101 or MATH102 or MATH199 C: FINC203 or MATH103 R: FINC612
FINC331	Financial Economics	15	S2	Campus	P: (1) FINC201; and (2) MATH102 or MATH199; C: ECON207 R: ECON331 RP: MATH103 EQ: ECON331
FINC345	The Economics of Risk and Insurance	15	NO		P: ECON 207 RP: ECON 208 EQ: ECON345
MATH102	Mathematics 1A	15	S1 S2	Campus Campus	P: 1. MATH101, or 2. NCEA 14 Credits at level 3 Mathematics, or 3. Cambridge: D at A level or an A at AS level in Mathematics, or 4. IB: 4 at HL or 5 at SL in Mathematics, or 5. Approval of the Head of School based on alternative prior learning. R: MATH108, MATH199, EMTH118
MATH103	Mathematics 1B	15	S2	Campus	P: MATH102 or EMTH118 R: MATH109, MATH199, EMTH119
MATH120	Discrete Mathematics	15	SU2 S2	Campus Campus	P: 1. MATH101 or MATH102 or EMTH118, or 2. NCEA 14 Credits (18 strongly recommended) at level 3 Mathematics, or 3. Cambridge: D at A level or an A at AS level in Mathematics, or 4. IB: 4 at HL or 5 at SL in Mathematics, or 5. approval of the Head of School based on alternative prior learning. R: MATH115
MATH170	Mathematical Modelling and Computation	15	NO		R: MATH171, EMTH171 RP: It is strongly recommended that students should have passed EMTH118 or MATH102 before taking EMTH171/MATH170. A prior or concurrent enrolment in EMTH119 or MATH103 is also recommended. If you are taking EMTH171/MATH170 concurrently with EMTH118 or MATH102, you are likely to experience difficulties and need to put in extra work.
MATH201	Multivariable Calculus	15	S1	Campus	P: MATH103 or MATH199 or EMTH119 R: MATH261, MATH264, EMTH202, EMTH204, EMTH210

MATH202	Differential Equations	15	S2	Campus	P: One of MATH103, MATH199 or EMTH119; and one of COSC121, COSC131 or other relevant experience as approved by the HOS R: MATH262, MATH264, EMTH202, EMTH204
MATH203	Linear Algebra	15	S1	Campus	P: MATH103 or EMTH119 or MATH199 R: MATH252, MATH254, EMTH203, EMTH204, EMTH211, DATA203
MATH270	Mathematical Modelling and Computation 2	15	S2	Campus	P: Both COSC121 and MATH103; or one of EMTH171, MATH170, or MATH171; or approval of the Dean of Engineering and Forestry. COSC121 can be replaced by COSC131, and MATH103 can be replaced by EMTH119 or MATH199. R: EMTH271, MATH271
MATH302	Partial Differential Equations	15	S1	Campus	P: (MATH201 and MATH202) or EMTH210 R: MATH361, EMTH391, EMTH413
MATH303	Applied Matrix Algebra	15	S2	Campus	P: One of MATH203, EMTH211, or DATA203 R: MATH352, EMTH412
MATH353	Computational Mathematics and Applications	15	S1	Campus	P: 1) Either MATH201 or EMTH210; AND 2) One of MATH202, MATH203, MATH240, MATH270, EMTH211 or EMTH271. With the permission of the Head of School a high grade in either MATH201 or EMTH210 will suffice. R: EMTH414
SENG201	Software Engineering I	15	S1	Campus	P: (1) COSC121 or COSC131; (2) COSC122. Recommended preparation: 15 points from MATH, STAT or EMTH. MATH120/STAT101 are strongly recommended. RP: RP: 15 points from MATH, STAT or EMTH. MATH120/STAT101 are strongly recommended.
SENG301	Software Engineering II	15	S1	Campus	P: SENG201. RP: ENCE260 or COSC262.
STAT101	Statistics 1	15	SU2	Campus	R: STAT111, STAT112, DIGI103 EQ: STAT111, STAT112, DIGI103
			S1	Campus	
			S2	Campus	
STAT201	Applied Statistics	15	S1	Campus	P: STAT101 or DATA101 or 15 points from 100-level MATH or EMTH (excluding MATH110) R: FORE210, STAT220, FORE222, STAT222
STAT202	Regression Modelling	15	S2	Campus	P: STAT101 or DATA101 or 15 points from 100-level MATH or EMTH (excluding MATH110) R: FORE210, STAT220, FORE224, STAT224
STAT211	Random Processes	15	S1	Campus	P: Either a) MATH199; or b) 15 points from MATH102 or EMTH118, and another 15 points from 100-level STAT, DATA, MATH, or EMTH (excluding MATH101 and MATH110) R: STAT216
STAT213	Statistical Inference	15	S2	Campus	P: (1) one of MATH102, MATH199 or EMTH118; and (2) one of STAT101, DATA101, STAT211, EMTH119, or EMTH210 R: STAT214
STAT221	Introduction to Statistical Computing Using R	15	S2	Campus	P: Either a) MATH199; or b) 15 points from MATH102 or EMTH118, and another 15 points from 100-level STAT, DATA, MATH, or EMTH (excluding MATH101 and MATH110) R: STAT218
STAT314	Bayesian Inference	15	S2	Campus	P: 30 points from 200-level MATH, EMTH, STAT202-299, DATA203 and PHYS285

STAT315	Multivariable Statistical Methods and Applications	15	S1	Campus	P: 15 points from STAT200-299 and a further 15 points from DATA200-299 or STAT200-299.
STAT317	Time Series Methods	15	S2	Campus	P: 15 points from MATH102, EMTH118 or MATH199; and another 30 points from 200-level STAT or ECON213 R: ECON323, FINC323
STAT318	Data Mining	15	S1	Campus	P: 15 points from MATH102, EMTH118 or MATH199; and another 30 points from 200-level STAT, COSC, DATA, MATH or EMTH

Mātauranga Ngahere | Forestry Science

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
FORE102	Forests and Societies	15	NO		P: Head of Department approval to enrol required. R: FORE101, FORE103, FORE104, FORE111, FORE121
FORE111	Trees, Forests and the Environment	15	S1	Campus	R: FORE101, FORE102, FORE103, FORE104, FORE105, FORE121
FORE218	Forest Biology	30	S1	Campus	P: FORE111 and BIOL112; or subject to approval by the Chair Board of Studies. R: FORE202 RP: BIOL111 (BCHM111), and/or BIOL113, and/or BIOL116
FORE219	Introduction to Silviculture	15	S2	Campus	P: BIOL112 and BIOL113, or FORE111, 131 and 141. R: PAMS202, BIOL252, FORE214

Geography

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
ENVR209	Environmental Science and Resource Management	15	S2	Campus	P: (ENVR101 and GEOG106) or (GEOG110 and GEOG106) and 15 points of CHEM, GEOL or BIOL R: GEOG206, GEOG209 and ENVR201 EQ: GEOG209
GEOG106	Global Environmental Change	15	S2	Campus	R: GEOG103
GEOG109	Physical Geography: Earth, Ocean, Atmosphere	15	NO		
GEOG110	People, Places and Environments	15	S1	Campus	R: GEOG107
GEOG201	Environmental Processes: Principles and Applications	15	S1	Campus	P: Any 30 points of 100-level Geography, or entry with approval of the Head of Department R: GEOG201 prior to 2009.
GEOG205	Introduction to Geographic Information Systems and Science	15	SU2 S1	Campus Campus	P: 45 points at 100-level or above, from any degree schedule. R: DIGI205 and GISC422
GEOG208	Remote sensing for geospatial analysis	15	S2	Campus	P: Any 30 points of 100-level Science, Engineering or Commerce R: GEOG313
GEOG209	Environmental Science and Resource Management	15	S2	Campus	P: (GEOG110 and GEOG106) or (ENVR101 and GEOG106) and 15 points of CHEM, GEOL or BIOL. OR entry with approval of the Head of School. R: GEOG206, ENVR201, ENVR209 EQ: ENVR209
GEOG211	Mountain Weather and Climates	15	S1	Campus	P: GEOG106 or ENVR101 or 15 points from CHEM, PHYS, GEOL, BIOL, ASTR, MATH at 100-level

GEOG213	The EU, Globalization and Migration	15	SU1	Campus	P: Any 30 points of 100-level Geography, or any 90 points approved by the Head of Department. R: EURO223, EURA223 EQ: EURA223
GEOG215	Environmental Hazards and Disasters	15	S2	Campus	P: 30 points of Geography or Geological Sciences at 100-level; or 30 points from Science, Arts, Commerce, or Engineering. R: GEOG305
GEOG217	Places for Wellbeing and Flourishing	15	S2	Campus	P: Any 30 points at 100-level from any subject, normally including GEOG110 or GEOG106.
GEOG222	Transport, Urban Development and Wellbeing	15	S1	Campus	P: 45 pts of 100-level including GEOG110 or GEOG106
GEOG309	Research for Resilient Environments and Communities	30	S2	Campus	P: 30 points of GEOG at 200-level, or ENVR209/ GEOG209 and ENVR210 R: GEOG204, GEOG303
GEOG310	Weather Systems	15	S2	Campus	P: GEOG211 and 15 points from Schedule S to the BSc
GEOG311	Coastal Studies	15	S1	Campus	P: 30 points of 200-level Geography, including GEOG201, or in special cases with approval of the Head of Department.
GEOG312	Snow, Ice and Climate	15	S2	Campus	P: 30 points of 200-level Geography and a further 15 pts at 200-level from any of GEOG, ENVR, GEOL, ANTA, WATR, BIOL, or in special cases with approval of the Head of School.
GEOG321	European Integration From Community to Union	30	S1	Campus	P: One of: (a) 15 points with a B average in any Arts subject; or (b) any 15 points in GEOG at 200-level; or (c) 15 points of EURO at 200-level with a B Pass: or (d) 30 points of EURO at 200-level; or (e) any 45 points from the Arts Schedule at 200-level. R: EURO210, EURO310, EURA210, EURA310 EQ: EURA310
GEOG323	Geospatial Analysis in the Social and Environmental Sciences	15	S1	Campus	P: 30 points of 200-level Geography, including GEOG205, or in special cases with approval of the Head of Department.
GEOG324	Web GIS and Geoinformatics	15	S2	Campus	P: 30 points of 200-level Geography, including GEOG205, or in special cases with approval of the Head of Department. Recommended preparation: COSC121, or equivalent introductory programming course. RP: COSC121, or equivalent introductory programming course.
GEOG325	Health, Wellbeing and Environment	15	S1	Campus	P: 30 points of Geography at 200-level; or 30 points from Science, Arts or Health Sciences. R: GEOG322
GEOG340	Field Based Geomorphic Applications	15	NO		P: 30 points of 200-level Geography, including GEOG201, or in special cases with approval of the Head of Department.
GEOG345	Special Topic	15	NO		P: 30 points of 200-level Geography or entry with the approval of the Head of Department.
GEOG351	Rethinking Development	15	S2	Campus	P: Any 30 points of 200-level Geography, or approval of the Head of Department. R: GEOG212
GISC101	Introduction to Spatial Data Science	15	S1	Campus	

Mātai Aronuku | Geology

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
GEOL101	Building Planet Earth: Fundamentals of Earth Science	15	S1	Campus	R: GEOL111
GEOL102	Environmental Earth System Science	15	S2	Campus	R: GEOL113; GEOL115
GEOL111	Planet Earth: An Introduction to Geology	15	NO		R: ENCI271
GEOL113	GeoHazards	15	NO		
GEOL115	The Dynamic Earth System	15	NO		R: GEOL112 RP: GEOL111
GEOL237	Special Topic	15	S1	Campus	P: Subject to approval of the Head of Department.
			S2	Campus	
GEOL240	Field Studies A - Mapping	15	S1	Campus	P: GEOL101 and GEOL102, GEOL111 and 15 points at 100-level from GEOL C: 15 points from any of GEOL242-246 offered in the same semester
GEOL241	Field Studies B - Field Techniques	15	S2	Campus	P: GEOL111 and any 15 points at 100-level from GEOL C: 15 points from any of GEOL242-246 offered in the same semester R: GEOL231
GEOL242	Rocks, Minerals and Ores	15	S1	Campus	P: GEOL101 and GEOL102 OR GEOL111 and 15 points at 100-level from GEOL
GEOL243	Depositional Environments and Stratigraphy	15	S1	Campus	P: GEOL101 and GEOL102 OR GEOL111 and 15 points at 100-level from GEOL
GEOL244	Structural Geology and Global Geophysics	15	S2	Campus	P: GEOL101 and GEOL102 OR GEOL111 and 15 points at 100-level from GEOL
GEOL246	Earth Surface Dynamics	15	S2	Campus	P: 30 points from GEOL, MATH, EMTH, ENVR, PHYS at 100-level, or (GEOG106 and 15 points from GEOL, MATH, EMTH, ENVR, PHYS at 100-level). RP: GEOL111; GEOL113; GEOG106; 100-level MATH
GEOL247	Forensic Palaeontology	15	NO		P: GEOL101 or BIOL112 or BIOL113. GEOL243 is recommended preparation but is not required R: GEOL347 RP: GEOL243
GEOL331	Principles of Basin Analysis	15	S2	Campus	P: GEOL243 and any 15 points at 200-level from GEOL
GEOL338	Engineering and Mining Geology	15	S2	Campus	P: GEOL242 and GEOL246
GEOL339	Special Topic	15	S1	Campus	P: Subject to approval of the Head of Department
GEOL340	Special Topic	15	S1	Campus	P: Subject to approval of the Head of Department
			S2	Campus	
GEOL342	Special Topic	15	S1	Campus	P: Subject to approval of the Head of Department
GEOL343	Special Topic	15	S1	Campus	P: Subject to approval of the Head of Department
			S2	Campus	
GEOL345	Groundwater and Geothermal Systems	15	S1	Campus	P: Any 100-level GEOL course. MATH101 or equivalent is highly recommended. RP: MATH101 or its equivalent is highly recommended.
GEOL347	Forensic Palaeontology	15	NO		P: GEOL101 or BIOL112 or BIOL113. GEOL243 is recommended preparation but is not required. R: GEOL247 RP: GEOL243

GEOL351	Advanced Field Techniques	15	S1	Campus	P: (1) GEOL 240 and GEOL 241, and (2) GEOL243 (3) 30 points from other GEOL 200-level courses. C: 15 points from GEOL331-357 offered in the same semester.
GEOL352	Advanced Field Mapping	15	X	Campus	P: (1) GEOL 240 and GEOL 241, and (2) GEOL244 (3) 30 points from other GEOL 200-level courses. C: 15 points from GEOL331-357 offered in the same semester.
GEOL354	Geodynamics and Geohazards	15	S1	Campus	P: GEOL102; any 30 points from GEOL244, GEOL246, or GEOG215.
GEOL356	Field-focused Research Methods	30	X	Campus	P: Subject to approval of the Head of Department. R: ENVR356
			X2	Campus	
GEOL357	Topics in New Zealand Geology	15	NO		P: Any 45 points at 200-level from GEOL.

Health Sciences

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
HLTH101	Introduction to Health Studies	15	S1	Campus	
			S1	Distance Learning	
HLTH201	Health Promotion	15	S2	Campus	P: Any 60 points at 100-level from any subject, or any 30 points at 100-level from HLTH or SPCO R: HLTH102
HLTH301	Evidence in Health	30	S2	Campus	P: Any 30 points at 200-level from Health Science (HLTH, HLPA and HLED).

Mātai Wetereo | Linguistics

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
LING101	How Language Works	15	S1	Campus	R: ENGL123, ENLA101
			S1	Distance Learning	
LING102	Language and Society in New Zealand and Beyond	15	S2	Distance Learning	R: ENLA102 EQ: ENLA102
			S2	Campus	
LING104	European Languages in Europe and Beyond	15	NO		R: EULC104, EURO104, EURA104 EQ: EURA104
LING210	Sociolinguistic methods	15	NO		P: Any 15 points at any level from any subject. R: LING203, ENLA210
LING212	Sounds and Words	15	S1	Campus	P: Any 15 points at any level from LING R: LING 215 LING 216
			S1	Distance Learning	
LING217	Grammatical structure	15	S2	Campus	P: Any 15 points at any level from LING. R: LING201, LING206, LING211
			S2	Distance Learning	
LING219	Language Acquisition	15	S1	Campus	P: Any 15 points at any level from any subject. R: CMDS221, LING205
			S1	Distance Learning	
LING223	Text Analytics	15	S1	Campus	P: 15 points at any level from any subject. R: DIGI223 EQ: DIGI223
			S1	Distance Learning	

LING225	Language and Social Justice	15	S2	Campus	P: Any 15 points at any level from any subject.
			S2	Distance Learning	
LING230	Special Topics in Linguistics	15	S1	Campus	P: Any 15 points at any level from any subject.
			S1	Distance Learning	
LING306	Topics in Syntactic Theory	30	NO		P: LING217
LING307	Topics in Phonetics and Phonology	30	S1	Campus	P: LING215 R: LING301, LING311
			S1	Distance Learning	
LING309	Topics in Morphology and Word Formation	30	NO		P: LING201 or LING206 or LING211 or LING216 or LING217
LING310	Linguistics Research Project	30	S2	Campus	P: Any 15 points at 200-level from LING. R: ENLA310 EQ: ENLA310
			S2	Distance Learning	
LING320	History of English	30	NO		P: LING101 and any 15 points at 200-level from any subject. R: LING220, ENLA320 RP: Any LING 200-level course

Pāngarau | Mathematics

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
MATH101	Methods of Mathematics	15	S1	Campus	R: Students who have been credited with any of EMTH118, EMTH119, MATH102 or MATH103, cannot subsequently be credited with MATH101.
			W	Campus	
			S2	Campus	
MATH102	Mathematics 1A	15	S1	Campus	P: 1. MATH101, or 2. NCEA 14 Credits at level 3 Mathematics, or 3. Cambridge: D at A level or an A at AS level in Mathematics, or 4. IB: 4 at HL or 5 at SL in Mathematics, or 5. Approval of the Head of School based on alternative prior learning. R: MATH108, MATH199, EMTH118
			S2	Campus	
MATH103	Mathematics 1B	15	S2	Campus	P: MATH102 or EMTH118 R: MATH109, MATH199, EMTH119
MATH110	Foundations of Applied Mathematics	15	S1	Campus	R: EMTH118, MATH101, MATH102, MATH199
MATH120	Discrete Mathematics	15	SU2	Campus	P: 1. MATH101 or MATH102 or EMTH118, or 2. NCEA 14 Credits (18 strongly recommended) at level 3 Mathematics, or 3. Cambridge: D at A level or an A at AS level in Mathematics, or 4. IB: 4 at HL or 5 at SL in Mathematics, or 5. approval of the Head of School based on alternative prior learning. R: MATH115
			S2	Campus	
MATH130	Introduction to Logic and Computability	15	NO		R: MATH134, PHIL134, PHIL138
MATH170	Mathematical Modelling and Computation	15	NO		R: MATH171, EMTH171 RP: It is strongly recommended that students should have passed EMTH118 or MATH102 before taking EMTH171/MATH170. A prior or concurrent enrolment in EMTH119 or MATH103 is also recommended. If you are taking EMTH171/MATH170 concurrently with EMTH118 or MATH102, you are likely to experience difficulties and need to put in extra work.

MATH199	AIMS - Advancing in Mathematical Sciences	30	W	Campus	P: Subject to approval of the Head of School. R: MATH102, MATH103, EMTH118, EMTH119.
			W	Distance Learning	
MATH201	Multivariable Calculus	15	S1	Campus	P: MATH103 or MATH199 or EMTH119 R: MATH261, MATH264, EMTH202, EMTH204, EMTH210
MATH202	Differential Equations	15	S2	Campus	P: One of MATH103, MATH199 or EMTH119; and one of COSC121, COSC131 or other relevant experience as approved by the HOS R: MATH262, MATH264, EMTH202, EMTH204
MATH203	Linear Algebra	15	S1	Campus	P: MATH103 or EMTH119 or MATH199 R: MATH252, MATH254, EMTH203, EMTH204, EMTH211, DATA203
MATH220	Discrete Mathematics and Cryptography	15	S1	Campus	P: MATH120 and one of MATH102, MATH103, MATH199, EMTH118, EMTH119 R: MATH221, MATH231
MATH230	Logic, Automata, and Computability	15	S2	Campus	P: 15 points from MATH102-199, and a further 15 points from 100-level COSC, EMTH, MATH, PHIL or STAT courses, excluding COSC110 and MATH101. R: MATH208, MATH308, PHIL208 (prior to 2014), PHIL210, PHIL308 (prior to 2014). EQ: PHIL210
MATH240	Introduction to Analysis	15	S2	Campus	P: MATH103, MATH199 or EMTH119. R: MATH222, MATH243
MATH270	Mathematical Modelling and Computation 2	15	S2	Campus	P: Both COSC121 and MATH103; or one of EMTH171, MATH170, or MATH171; or approval of the Dean of Engineering and Forestry. COSC121 can be replaced by COSC131, and MATH103 can be replaced by EMTH119 or MATH199. R: EMTH271, MATH271
MATH280	Introduction to Scientific Computation	15	NO		P: MATH103, MATH199 or EMTH119 R: MATH281, MATH282
MATH302	Partial Differential Equations	15	S1	Campus	P: (MATH201 and MATH202) or EMTH210 R: MATH361, EMTH391, EMTH413
MATH303	Applied Matrix Algebra	15	S2	Campus	P: One of MATH203, EMTH211, or DATA203 R: MATH352, EMTH412
MATH320	Discrete Mathematics	15	S1	Campus	P: 30 points from MATH201, MATH202, MATH203, MATH220, MATH240, EMTH210, EMTH211.
MATH321	Rings and Fields	15	S1	Campus	P: ONE of MATH203, DATA203 or EMTH211, and ONE of MATH120, MATH220, MATH240 R: MATH439, MATH311
MATH324	Cryptography and Coding Theory	15	S2	Campus	P: ONE of MATH203, DATA203 or EMTH211, and ONE of MATH120, MATH220, MATH240 R: MATH391
MATH335	Computability Theory	15	NO		P: 1) MATH230 and (COSC222 or COSC261); or 2) 30 points in MATH or EMTH at 200-level, as approved by the Head of School; or 3) MATH230 and, with the approval of the Head of School, an appropriate Philosophy course.
MATH336	Foundations of Mathematics	15	NO		P: 30 points in MATH or EMTH at 200-level, as approved by the Head of School. R: MATH208, MATH308
MATH343	Metric, Normed and Hilbert Spaces	15	S1	Campus	P: (MATH120 or MATH240), and a further 15 points from (MATH201, MATH202, MATH203, MATH240, EMTH210, or EMTH211).

MATH353	Computational Mathematics and Applications	15	S1	Campus	P: 1) Either MATH201 or EMTH210; AND 2) One of MATH202, MATH203, MATH240, MATH270, EMTH211 or EMTH271. With the permission of the Head of School a high grade in either MATH201 or EMTH210 will suffice. R: EMTH414
MATH363	Dynamical Systems	15	S2	Campus	P: MATH201 or EMTH210 and a further 15 points from (EMTH211, EMTH271, MATH202, MATH203, MATH240, MATH270). R: EMTH415
MATH365	Applications of Complex Variables	15	S2	Campus	P: MATH201 or MATH240; or, a high level of achievement in EMTH210 with Head of School approval R: MATH342
MATH380	Mathematics in Perspective	15	S2	Campus	P: 30 points in Mathematics or Statistics or Engineering Mathematics at 100-level. 45 points from the BA or BSc Schedule at 200-level in Mathematics, Statistics, Engineering Mathematics, related subjects, or other subjects with good grades, as approved by the Head of School. R: MATH301, MATH433, HAPS405
MATH391	Special Topic	15	S1	Campus	P: Subject to the approval of the Head of School.
MATH392	Special Topic	15	S2	Campus	P: Subject to the approval of the Head of School.
MATH393	Independent Course of Study	15	S1	Campus	P: Subject to approval of the Head of School.
MATH394	Independent Course of Study	15	S2	Campus	P: Subject to the approval of the Head of School.
MATH395	Mathematics Project	15	SU2	Campus	P: Subject to approval of the Head of School R: MATH305

Whakaaroaro | Philosophy

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
PHIL110	Science: Good, Bad, and Bogus	15	S1	Campus	R: HAPS110
			S1	Distance Learning	
PHIL111	Philosophy, Sex, and Thinking	15	NO		
PHIL132	God, Mind, and Freedom	15	NO		R: PHIL101
PHIL133	Philosophy and Human Nature	15	S2	Campus	
PHIL137	Big Data, Artificial Intelligence and Ethics	15	NO		R: POLS137, DIGI102 EQ: POLS137, DIGI102
PHIL138	Logic and Critical Thinking	15	SU1	Distance Learning	R: PHIL132 (prior to 2006), MATH130, PHIL134/ MATH134
			SU1	Campus	
PHIL139	Ethics, Politics and Justice	15	S2	Distance Learning	
			S2	Campus	
PHIL203	Dinosaurs, Quarks and Quasars: The Philosophy of Science	15	S1	Campus	P: Any 15 points at 100-level in PHIL, or any 60 points at 100-level from the Schedule V of the BA or the BSc. R: PHIL223, PHIL303
			S1	Distance Learning	

PHIL208	The Brain Gym: An Introduction to Logic	15	S1	Campus	P: Any 15 points at 100-level in PHIL, COSC, LING, MATH, or from the BE(Hons), or any 60 points at 100-level from any subject. R: PHIL225, PHIL246, PHIL346, PHIL308, MATH208, MATH308
			S1	Distance Learning	
PHIL210	Logic, Automata, and Computability	15	NO		P: Any 15 points at 100-level from MATH or PHIL, or any 60 points at 100-level from the Schedule V of the BA. R: MATH230
PHIL224	Greek Philosophy	15	NO		P: Any 15 points at 100-level from CLAS or PHIL, or any 60 points at 100-level from the Schedule V of the BA. R: CLAS224, CLAS324, PHIL314 EQ: CLAS224
PHIL229	Philosophy of Religion: Rationality, Science, and the God Hypothesis	15	S1	Campus	P: Any 15 points at 100-level in PHIL, or any 60 points at 100-level from the Schedule V of the BA or the BSc. R: RELS210, PHIL318
			S1	Distance Learning	
PHIL233	Epistemology and Metaphysics	15	S2	Distance Learning	P: Any 15 points at 100-level in PHIL, or any 60 points at 100-level from the Schedule V of the BA or the BSc.
			S2	Campus	
PHIL235	Cyberspace, Cyborgs, and the Meaning of Life	15	NO		P: Any 15 points at 100-level in PHIL, COSC, DIGI, or MATH, or any 60 points at 100-level from the Schedule V of the BA or the BSc. R: PHIL335, DIGI202, DIGI302 EQ: DIGI202
PHIL236	Ethics	15	S2	Campus	P: Any 15 points at 100-level from PHIL, or any 60 points at 100-level from the Schedule V of the BA. R: PHIL321
PHIL240	Bioethics: Life, Death, and Medicine	15	S2	Campus	P: Any 15 points at 100-level in PHIL, HSRV, HLTH, LAWS, or POLS, or any 60 points at 100-level from the Schedule V of the BA or the BSc. R: PHIL324, POLS225
			S2	Distance Learning	
PHIL249	Environmental Ethics	15	SU1	Distance Learning	P: Any 15 points at 100-level in PHIL, or any 60 points at 100-level from the Schedule V of the BA or the BSc. RP: 15 points of 100-level Philosophy, or 30 points or more of humanities, social science, science, engineering, economics, or commerce studies and an interest in reflective critical debate.
			SU1	Campus	
PHIL250	Turing: From the Computer Revolution to the Philosophy of AI	15	S2	Campus	P: Any 15 points at 100-level in PHIL, COSC, LING, MATH, or PSYC, or any 60 points at 100-level from the Schedule V of the BA or the BSc. R: COSC260 EQ: COSC260
			S2	Distance Learning	
PHIL303	Quarks, Quasars and Dinosaurs: The Philosophy of Science	15	S1	Campus	P: Any 30 points at 200-level in PHIL, or any 60 points at 200-level from the Schedule V of the BA or BSc. R: PHIL203
			S1	Distance Learning	
PHIL305	Paradoxes	30	S1	Campus	P: Any 30 points at 200-level in PHIL, COSC, or MATH, or any 60 points at 200-level from the Schedule V of the BA or BSc. R: PHIL494, PHIL444
			S1	Distance Learning	

PHIL308	The Brain Gym: An Introduction to Logic	15	S1	Campus	P: Any 30 points at 200-level in PHIL, COSC, LING, MATH or from the BE(Hons), or any 60 points at 200-level from the Schedule V of the BA or BSc. R: PHIL225, PHIL246, PHIL346, PHIL208, MATH208, MATH308
			S1	Distance Learning	
PHIL310	History of Philosophy	30	S1	Campus	P: Any 30 points at 200-level from PHIL, or any 60 points at 200-level from the Schedule V of the BA.
PHIL311	Meaning, Mind, and the Nature of Philosophy	30	S2	Campus	P: Any 30 points at 200-level from PHIL, or any 60 points at 200-level from the Schedule V of the BA or the BSc. R: PHIL464, PHIL497
			S2	Distance Learning	
PHIL314	Greek Philosophy	30	NO		P: Any 30 points at 200-level from CLAS or PHIL, or any 60 points at 200-level from the Schedule V of the BA. R: PHIL224, CLAS224, CLAS324 EQ: CLAS324
PHIL317	Contemporary Political Philosophy	30	NO		P: Any 30 points at 200-level from PHIL or POLS, or any 60 points at 200-level from the Schedule V of the BA. R: POLS301, POLS351
PHIL318	Philosophy of Religion: Rationality, Science, and the God Hypothesis	30	S1	Campus	P: Any 30 points at 200-level from PHIL, or any 60 points at 200-level from the Schedule V of the BA or the BSc. R: RELS210 and PHIL229
			S1	Distance Learning	
PHIL320	Special Topic	15	NO		P: Any 30 points at 200-level from PHIL, or any 60 points at 200-level from the Schedule V of the BA. R: HLTH407
PHIL321	Ethics	15	S2	Campus	P: Any 30 points at 200-level from PHIL, or any 60 points at 200-level from the Schedule V of the BA. R: PHIL236
PHIL324	Bioethics: Life, Death, and Medicine	15	S2	Campus	P: Any 30 points at 200-level in PHIL, LAWS, HLTH, or any 60 points at 200-level from the Schedule V of the BA. R: PHIL240, POLS225 RP: PHIL139 or PHIL236
			S2	Distance Learning	
PHIL335	Cyberspace, Cyborgs and the Meaning of Life	15	NO		P: Any 30 points at 200-level in PHIL, PSYC, DIGI, MATH or COSC, or any 60 points at 200-level from the Schedule V of the BA or the BSc. R: PHIL235, DIGI202, DIGI302 EQ: DIGI302
PHIL343	Landmarks of Analytic Philosophy	15	NO		P: Any 30 points at 200-level from PHIL, or any 60 points at 200-level from the Schedule B of the BA. R: PHIL493

Mātai Ahupūngao | Physics

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
ASTR332	Theoretical and Observational Cosmology	15	S1	Campus	P: (1) PHYS205 and PHYS203; and (2) MATH103 or MATH109 or EMTH119 or MATH201. R: ASTR422, ASTR322 RP: MATH202
CHEM251	Foundations of Materials Science and Nanotechnology	15	S2	Campus	P: CHEM211 or (CHEM111 and PHYS102) R: CHEM241 and CHEM245

COSC131	Introduction to Programming for Engineers	15	S1 S2	Campus Campus	P: 1) MATH101, or 2) NCEA 14 Credits (18 strongly recommended) at level 3 Mathematics (including the standards 'Apply differentiation methods in solving problems (91578)' and 'Apply integration methods in solving problems (91579)'), or 3) Cambridge: D at A level or an A at AS level in Mathematics, or 4) IB: 4 at HL or 5 at SL in Mathematics, or 5) approval of the Head of Department based on alternative prior learning. R: COSC121
ENEL270	Principles of Electronics and Devices	15	S1	Campus	P: PHYS102, MATH103 or EMTH119; or Approval of the Dean of Engineering and Forestry R: ENEL203
ENVR356	Field-focused Research Methods in Environmental Science	30	X X2	Campus Campus	P: Enrolment in the Frontiers Abroad programme and Head of Department approval. R: GEOL356. This course is not open to non-Frontiers Abroad students RP: Completion of course(s) at home institution in the broader field of Earth Systems Science and Environmental Science and Studies.
PHYS101	Engineering Physics A: Mechanics, Waves, Electromagnetism and Thermal Physics	15	SU2	Campus	P: 1) a) PHYS111 or NCEA 14 credits (18 credits strongly recommended) at level 3 Physics, and b) MATH101 or 14 Credits (18 credits strongly recommended) at level 3 Mathematics (including the standards 'Apply differentiation methods in solving problems (91578)' and 'Apply integration methods in solving problems(91579)), or 2) Cambridge: D at A level or an A at AS level in both Physics and Mathematics, or 3) IB: 4 at HL or 6 at SL in both Physics and Mathematics, or 4) approval of the Head of Department based on alternative prior learning. R: PHYS113, PHYS112 EQ: PHYS113
PHYS102	Engineering Physics B: Modern Physics and Electromagnetism (2)	15	SU2 S2	Campus Campus	P: PHYS101. These prerequisites may be replaced by other background as approved by Head of Department R: PHYS114, PHYS115 EQ: PHYS114
PHYS109	The Cosmos: Birth and Evolution	15	NO		R: (1) ASTR109. (2) Students who have been credited with ASTR112 cannot subsequently be credited with PHYS109. EQ: ASTR109
PHYS111	Introductory Physics for Physical Sciences and Engineering	15	S1	Campus	R: Students who have been credited with any of PHYS101, PHYS102, PHYS113 or PHYS114 cannot subsequently be credited with PHYS111.
PHYS203	Relativistic and Quantum Physics	15	S2	Campus	P: (1) PHYS102 or (PHYS101 and CHEM211); (2) MATH102 or EMTH118. These prerequisites may be replaced by a high level of achievement in level 3 NCEA Physics and Mathematics with Calculus or other background approved by the Head of Department. R: PHYS222 RP: MATH103 or EMTH119.

PHYS205	Waves, Optics and Mechanics	15	S1	Campus	P: (1) PHYS101; (2) MATH102 or EMTH118. These prerequisites may be replaced by a high level of achievement in level 3 NCEA Physics and Mathematics with Calculus or other background approved by the Head of Department. R: PHYS201, PHYS202 RP: (1) PHYS102; (2) MATH103 or EMTH119; (3) COSC131 or COSC121.
PHYS206	Electromagnetism and Materials	15	S2	Campus	P: (1) PHYS102 or (PHYS101 + CHEM211); (2) MATH102. These prerequisites may be replaced by a high level of achievement in level 3 NCEA Physics and Mathematics with Calculus or other background approved by the Head of Department. R: PHYS202, PHYS314 RP: MATH103 or EMTH119.
PHYS208	Special Topic	15	NO		P: Admission only by permission of the Head of Department
PHYS209	Special Topic	15	NO		P: Admission only by permission of the Head of Department
PHYS285	Technical and Professional Skills for Physicists	15	S1	Campus	P: (1) PHYS101; and (2) MATH102 or EMTH118; and (3) COSC131 or COSC121 or another approved course in computer programming. These prerequisites may be replaced by a high level of achievement in level 3 NCEA Physics and Mathematics with Calculus or other background approved by the Head of Department. R: PHYS281, PHYS282 RP: (1) PHYS102; and (2) MATH103 or EMTH119
PHYS310	Thermal, Statistical and Particle Physics	15	S1	Campus	P: (1) PHYS203; (2) MATH103 or EMTH119 or MATH201. R: PHYS204, PHYS440 RP: MATH201
PHYS311	Quantum Mechanics	15	S1	Campus	P: (1) PHYS203 or (PHYS206 and CHEM251); (2) MATH103 or EMTH119 or MATH201. RP: MATH201 and MATH203
PHYS313	Advanced Electromagnetism and Materials	15	S2	Campus	P: (1) PHYS206; (2) PHYS203 or CHEM211; (3) MATH103 or EMTH119 or MATH201. R: PHYS312, PHYS314, PHYS443 RP: MATH201
PHYS319	Atmospheric, Oceanic and Climate Dynamics	15	NO		P: (1) PHYS201 or PHYS205; (2) PHYS202 or PHYS203 or PHYS206 (3) MATH103 or EMTH119 or MATH201. R: PHYS316, PHYS418, PHYS419 RP: MATH202
PHYS323	Laser Physics and Modern Optics	15	S1	Campus	P: 1) PHYS203; (2) PHYS206; (3) MATH103 or MATH109 or EMTH119 or MATH201. R: PHYS413 RP: PHYS205, MATH201
PHYS326	Classical Mechanics and Symmetry Principles	15	S1	Campus	P: (1) PHYS202 or PHYS205; (2) PHYS203; (3) MATH201 RP: MATH202 and MATH203
PHYS327	Special Topic	15	NO		P: (1) Subject to approval of the Head of Department; (2) MATH103 or MATH109 or equivalent.
PHYS328	Special Topic	15	NO		P: (1) Subject to approval of the Head of Department.; (2) MATH103 or MATH109 or equivalent.
PHYS330	Environmental and climate modelling	15	S2	Campus	P: (COSC131 or COSC121 or BIOL209) AND (PHYS285 or ENVR201 or ENVR209 or GEOG201) R: PHYS430

PHYS381	Advanced Experimental Physics and Astronomy	15	S2	Campus	P: (1) PHYS285; (2) 30 points from PHYS201-206 including either PHYS202 or PHYS205); (3) MATH103 or EMTH119 or MATH201. R: ASTR381 RP: MATH201 EQ: ASTR381
PHYS391	Introductory Physics Research	15	SU2	Campus	P: (1) MATH103 or MATH109 or equivalent (2) 44 points from PHYS200 (3) Entry subject to a supervisor approved by the Head of Department, being available
			S1	Campus	
			S2	Campus	

Product Design

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
PROD131	Introduction to Formulation Science	15	S2	Campus	P: Any 15 points of CHEM C: Any 15 points of CHEM

Mātai Hinengaro | Psychology

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
PSYC105	Introductory Psychology - Brain, Behaviour and Cognition	15	SU2	Distance Learning	R: PSYC103, PSYC104
PSYC106	Introductory Psychology - Social, Personality and Developmental	15	SU1	Distance Learning	R: PSYC103, PSYC104
			S2	Campus	
			S2	Distance Learning	
PSYC107	Foundations of Psychological Science	15	S2	Campus	
			S2	Distance Learning	
PSYC206	Introductory Research Methods and Statistics	15	SU2	Distance Learning	P: At least 15 points in 100-level Psychology and at least 45 points overall
			S1	Campus	
			S1	Distance Learning	
PSYC207	Developmental Psychology	15	S2	Campus	P: PSYC105 and PSYC106
			S2	Distance Learning	
PSYC208	Cognition	15	S2	Campus	P: PSYC105 and PSYC106, or with the approval of the Head of School, a pass in a professional year of Engineering, or in approved courses in Computer Science, Linguistics, or Philosophy
PSYC209	Sensation and Perception	15	S1	Campus	P: PSYC105 and PSYC106, or with the approval of the Head of School, a pass in a professional year of Engineering, or in approved courses in Art, Art History, or Computer Science
			S1	Distance Learning	
PSYC211	Personality	15	S2	Campus	P: PSYC105 and PSYC106
			S2	Distance Learning	

PSYC213	Introduction to Social Psychology	15	S1	Campus	P: PSYC105 and PSYC106 R: PSYC332
PSYC214	The Science and Practice of Wellbeing	15	S1	Campus	P: PSYC105 and PSYC106; or 60 points at 100-level from any subject.
			S1	Distance Learning	
PSYC215	Introductory Cognitive and Behavioural Neuroscience	15	S2	Campus	P: P: PSYC105 and PSYC106 R: PSYC333 RP: PSYC107 or ARTS102
PSYC216	Psychology and Law	15	S2	Campus	P: PSYC105 and PSYC106
			S2	Distance Learning	
PSYC330	Forensic Psychology	15	S1	Campus	P: PSYC206 or 60 points at 200-level from Schedules C or E of the Bachelor of Criminal Justice.
			S1	Distance Learning	
PSYC336	Industrial and Organisational Psychology	15	S2	Campus	P: PSYC206. RP: PSYC211, 15 further points from PSYC200
			S2	Distance Learning	
PSYC340	Cognitive Psychology	15	S2	Campus	P: PSYC208 EQ: PSYC416
PSYC341	Environmental Psychology	15	S2	Campus	P: Any 120 points at 100-level from any subject. RP: PSYC105/PSYC106 or ENVR101
			S2	Distance Learning	
PSYC344	Intermediate Research Methods and Statistics	30	SU2	Distance Learning	P: PSYC206
PSYC348	Contemporary Issues in Family Psychology	15	NO		P: PSYC206 or 60 points at 200-level from the Health Sciences or Arts schedule.
PSYC373	Neuroscience and Neurological Disorders	15	S1	Campus	P: PSYC105, PSYC206 and PSYC215 R: PSYC333
PSYC374	Health Psychology	15	S1	Campus	P: PSYC206 R: PSYC339
PSYC375	Intermediate Research Methods and Statistics	15	S2	Campus	P: PSYC206 R: PSYC344
			S2	Distance Learning	
PSYC379	Introduction to Psychopathology	15	S1	Campus	P: PSYC206 R: PSYC335
			S1	Distance Learning	
PSYC380	Risk and Resilience in Human Development	15	NO		P: P: PSYC206 R: PSYC335 RP: PSYC207
PSYC382	Culture and Cognition	15	S2	Campus	P: PSYC206
			S2	Distance Learning	

Science

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
SCIE101	Science, Society and Me	15	S2	Campus	
			S2	Distance Learning	

SCIE303	Internship	15	NO		P: 105 points, including 45 points at 200-level. Special application and interview, with permission of Internship Manager. RP: Students should attend UC careers CV writing and interview skills workshop prior to submitting internship application

Science, Māori and Indigenous Knowledge

Note: This is an integrated multi-disciplinary course between the Aotahi - School of Māori and Indigenous Studies and Te Kaupeka Pūtaiao | Faculty of Science.

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
SCIM101	Science, Māori and Indigenous Knowledge	15	S2	Campus	R: MAOR172 EQ: MAOR172

Speech and Language Sciences

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
SPSC113	Introduction to Communication Disorders	15	S2	Campus	R: CMDS111 and CMDS112 EQ: CMDS113
SPSC114	The Art and Science of Human Communication	15	SU2	Distance Learning	
			S1	Campus	
SPSC161	Anatomy and Physiology of the Speech, Hearing and Swallowing Mechanism	15	NO		R: CMDS161 EQ: CMDS161
SPSC262	Neuroscience of Swallowing and Communication	15	S1	Campus	R: SPSC667, CMDS162

Soil Science

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
SOIL203	Soil Fertility	15	S2	Campus	P: 30 points from CHEM, GEOL, BIOL, FORE or by approval Chair Forestry Board of Studies R: SOIL201

Tatauranga | Statistics

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
STAT101	Statistics 1	15	SU2	Campus	R: STAT111, STAT112, DIGI103 EQ: STAT111, STAT112, DIGI103
			S1	Campus	
			S2	Campus	
STAT201	Applied Statistics	15	S1	Campus	P: STAT101 or DATA101 or 15 points from 100-level MATH or EMTH (excluding MATH110) R: FORE210, STAT220, FORE222, STAT222
STAT202	Regression Modelling	15	S2	Campus	P: STAT101 or DATA101 or 15 points from 100-level MATH or EMTH (excluding MATH110) R: FORE210, STAT220, FORE224, STAT224

STAT211	Random Processes	15	S1	Campus	P: Either a) MATH199; or b) 15 points from MATH102 or EMTH118, and another 15 points from 100-level STAT, DATA, MATH, or EMTH (excluding MATH101 and MATH110) R: STAT216
STAT213	Statistical Inference	15	S2	Campus	P: (1) one of MATH102, MATH199 or EMTH118; and (2) one of STAT101, DATA101, STAT211, EMTH119, or EMTH210 R: STAT214
STAT221	Introduction to Statistical Computing Using R	15	S2	Campus	P: Either a) MATH199; or b) 15 points from MATH102 or EMTH118, and another 15 points from 100-level STAT, DATA, MATH, or EMTH (excluding MATH101 and MATH110) R: STAT218
STAT312	Data Collection and Sampling Methods	15	S1	Campus	P: 15 points from STAT200-299 and a further 15 points from STAT200-299 or DATA200-299 the rationale is that this takes into account new pathways into the course from recent data offerings.
STAT313	Computational Statistics	15	S1	Campus	P: 15 points from 200-level MATH or EMTH, STAT210-299 or DATA203
STAT314	Bayesian Inference	15	S2	Campus	P: 30 points from 200-level MATH, EMTH, STAT202-299, DATA203 and PHYS285
STAT315	Multivariable Statistical Methods and Applications	15	S1	Campus	P: 15 points from STAT200-299 and a further 15 points from DATA200-299 or STAT200-299.
STAT316	Applied Stochastic Modelling	15	NO		P: 15 points from STAT211, STAT212, STAT221 or MATH201. R: MATH376
STAT317	Time Series Methods	15	S2	Campus	P: 15 points from MATH102, EMTH118 or MATH199; and another 30 points from 200-level STAT or ECON213 R: ECON323, FINC323
STAT318	Data Mining	15	S1	Campus	P: 15 points from MATH102, EMTH118 or MATH199; and another 30 points from 200-level STAT, COSC, DATA, MATH or EMTH
STAT319	Generalised Linear and Multivariate Models	15	S2	Campus	P: 30 points from STAT202-299
STAT391	Special Topic	15	S1	Campus	P: Subject to the approval of the Head of School.
STAT392	Special Topic	15	S2	Campus	P: Subject to approval of the Head of School.
STAT393	Independent Course of Study	15	S1	Campus	P: Subject to approval of the Head of School.
STAT394	Independent Course of Study	15	S2	Campus	P: Subject to approval of the Head of School.
STAT395	Statistics Project	15	SU2	Campus	P: Subject to approval of the Head of School

Mātai Whakahaere Wai | Water Resource Management

Course Code	Course Title	Pts	2024	Location	P/C/R/RP/EQ
WATR201	Freshwater Resources	15	S2	Campus	P: Any 75 points at 100-level
WATR203	Freshwater Science Field Skills	15	X	Campus	P: A freshwater-related course of study or appropriate freshwater-related work experience as determined by the Head of Programme.
WATR301	Water Resource Management	15	S1	Campus	P: 45 points at 200-level in any subject area.