Faculty of Science

The Degree of Bachelor of Science (BSc)

See also General Course and Examination Regulations.

Note: In certain course regulations the Degree of Bachelor of Science is referred to as "the ordinary Degree of Bachelor of Science" to distinguish it from the Degree of Bachelor of Science with Honours.

1. Requirements of the Degree Course

Every candidate for the Degree of Bachelor of Science shall follow a course of study as laid down in these Regulations consisting of not fewer than 360 points (3 EFTS).

2. Structure of the Degree

To qualify for the Degree of Bachelor of Science:

(a) a candidate must pass courses having a minimum total value of 360 points.

(b) at least 254 points of the 360 must be from the Schedule to the Regulations for the Bachelor of Science.

(c) The remaining 106 points of the 360 may be for courses from any degree of the University. They will be subject to the Regulations of the other degree.

(d) at least 216 points must be for courses above 100-level.

(e) at least 84 points must be for courses at 300-level.

(f) at least 56 points of that 84 must be in a single subject from the Schedule to the Regulations for the Bachelor of Science or from a list of specified courses approved for the major requirement.

3. Excessive Load

A personal course of study of more than 160 points for a full year course of study or more than 80 points for a single semester is regarded as excessive. Candidates who wish to enrol for a course of study whose total points exceed 160 points for a full year or 80 points for a single semester must first obtain the approval of the Dean of Science.

Note: Students should seek advice from the College office as to the recommended GPA for such a course of study.

4. Direct Entry into 200-level Courses

Subject to the approval of the Dean of Science, a student who has achieved a sufficient standard in a subject or subjects in the National Certificate in Educational Achievement (NCEA) or other comparable examination may be enrolled in one or more courses listed in the Schedule with Prescription numbers from 201 to 299 without having passed the appropriate prerequisite to that course provided that:

(a) if the candidate is credited with the course he or she shall not thereafter be credited with any prerequisite in the subject of which that course forms a part, and

(b) if the candidate fails the course but in the opinion of the examiners attains the standard of a pass in a course at 100 or 200-level he or she shall be credited with a pass in such course or courses as the Dean of Science may decide.

5. Transfer from BE or BE(Hons) Degrees to BSc

A candidate who discontinues with a BE or BE(Hons) degree and enrols in a BSc may make an application to the Dean of Science to transfer credit from a BE or BE(Hons) to a BSc.

6. Cross Credits between BE(Hons) and BSc Degrees

A candidate who takes concurrently the course for the Degree of Bachelor of Science and Bachelor of Engineering (Honours) shall, in order to qualify for the award of both degrees, be enrolled for a course of study approved under the provisions of General Course and Examination Regulation A3, and shall:

(a) pass all the subjects laid down in the current Regulations for the Degree of Bachelor of Engineering (Honours);

(b) obtain 172 points above 100-level by passing courses selected from the Schedule to the Regulations for the Bachelor of Science which have not been credited to the Degree of Bachelor of Engineering (Honours), or used to obtain exemption from a course in that degree. Of these points, 84 must be from 300-level courses and

include at least 56 points from a single subject or as required by the subject major;

(c) if admitted into the Bachelor of Engineering (Honours) under BE(Hons) Regulation 4 Direct entry to the First Professional Year, complete the 172 points in (b) above. A student may be required to complete 100-level prerequisite courses from the Science Schedule, if their New Zealand Entrance qualification was not in appropriate subjects;

(d) have met the requirements of a BE(Hons) to be eligible to graduate BSc under this cross credit regulation.

7. Course for BSc after Completion of BE(Hons) Degree

A candidate who has qualified for the Degree of Bachelor of Engineering (Honours) and who is proceeding to the Degree of Bachelor of Science shall be enrolled for an approved course of study and shall satisfy the requirements of Regulation 6 hereof.

8. Restrictions and Prerequisites from Engineering Courses

Candidates for the Degree of Bachelor of Science under Regulations 4, 5 or 6 shall require permission of the Head of the Department of Mathematics and Statistics for enrolment in any Mathematics or Statistics course.

Note: Some Mathematics and Statistics courses duplicate significantly material in Engineering Mathematics, and will be restricted. Other courses may have prerequisites partially or fully satisfied by credits in Engineering Mathematics.

9. Cross Credits and Substitution between BSc and BForSc Degrees

(a) A candidate for the Degree of Bachelor of Science who is or has been enrolled for the Degree of Bachelor of Forestry Science shall, in order to qualify for the award of both degrees, meet all requirements as laid down in the Regulations of the Degree of Bachelor of Forestry Science and obtain 172 points above 100-level in courses selected from the Schedule to the Regulations for the Degree of Bachelor of Science which have not been credited to the Degree of Bachelor of Forestry Science or used to obtain exemption from a course in that degree.

Of these points, 84 points must be from 300-level courses and include at least 56 points from a single subject or as required by the subject major.

(b) With the approval of the Dean of Engineering and Forestry a candidate may substitute an additional 200-level course equivalent to 22 points or a 300-level course equivalent to 28 points from the Bachelor of Science schedule for any FORE 400 elective.

(c) A candidate shall have met the requirements of a BForSc to be eligible to graduate BSc under this cross credit regulation.

10. Credit for Other Tertiary Level or Non-University Courses

1. The Academic Board may grant credit towards the degree from any other tertiary qualification where the content and standard of such study are considered appropriate to the degree. Credit may be specified or unspecified, and will be at an appropriate level. Credit from a completed degree will not exceed a maximum of 120 points. Credit from an incomplete degree, diploma or other tertiary qualification will not exceed 224 points.
2. National qualifications registered on the New Zealand Qualifications Framework which could properly be taught at university degree level may be considered for credit on the following basis: National Diploma of Science, at Levels 5 and 6, or equivalent science qualification, and courses for incomplete qualifications: points will be assigned on the basis of the courses credited gained at Levels 5, 6 and 7. Completed qualifications at Level 7 will be credited as a maximum of 120 points.

   Note: The maximum of 120 points must be consistent with credit under Regulation K: Cross Crediting and Double Degrees.

11. Credit for NZCS or NZCE

Notwithstanding anything contained in these Regulations, a candidate who in the opinion of the Academic Board has qualified with outstanding merit for the New Zealand Certificate in Science or New Zealand Certificate in Engineering may be credited under Regulation 2(b) with 100-level courses or unspecified credit at the 100-level. Credit under this regulation shall not exceed 108 points.

12. Credit for Polytechnic Nursing Qualifications

A candidate who has completed a Polytechnic Nursing course may be credited with up to 72 points at 100-level under Regulation 2(c).

13. Transition Rules for Students Enrolled for the Degree of Bachelor of Science prior to 2006

These regulations took effect in 2006.

(a) To qualify for the degree of Bachelor of Science a candidate enrolled before 2006 must pass courses having a minimum total value of 350 points.

(b) Of the 350:

i. 262 points at least must be from the Schedule of courses for the Bachelor of Science.

ii. 88 points (the balance of the 350) may be from courses from any degree in the University.

(c) And of the 350:

i. 188 points at least must be for courses above 100-level and from the Schedule of Courses for the Bachelor of Science.

ii. 56 points at least must be at 300-level and from a single subject from the Schedule of Courses for the Bachelor of Science.

Note: See General Course Regulation P: General Transition Regulations.

Schedule to the Regulations for the Degree of Bachelor of Science

Accountancy, Finance and Information Systems

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
AFIS 323	e-Business Systems: Design, Management and Security	28	W	P: (1) AFIS 233; (2) 22 points from (AFIS 203, AFIS 213, AFIS 223, COSC 224, COSC 225, COSC 226, COSC 227, COSC 231). R: AFIS 523, COSC 332

Antarctic Studies

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
ANTA 101	Antarctic Studies	18	W	R: INCO 103, ANTA 102, ANTA 103, ANTA 112, ANTA 113
ANTA 102	Antarctic Studies: The Cold Continent	9	SU2 S1	R: INCO 103, ANTA 101, ANTA 112
ANTA 103	Antarctic Studies: Life in the Cold	9	SU2 S2	R: INCO 103, ANTA 101, ANTA 113
ANTA 201	Antarctica and Global Change	22	S2	P: ANTA 101, or ANTA 102 and ANTA 103, or ANTA 112 and ANTA 113, and 36 points from the BSc schedule.

Astronomy

Students intending to advance in Astronomy are strongly advised to include in their first year courses ASTR 112, PHYS 113, PHYS 114, MATH 108 and MATH 109. It should be noted that PHYS 113 is offered in Semesters 1 and 2, and PHYS 114 is offered in Semester 2, and as a Summer Programme. In second year, PHYS 221-224, 226, 281, 282, and one of MATH 261 or 264 are strongly recommended. A major in Astronomy requires 22 points from MATH 251-264. A major in Astronomy requires 56 points consisting of ASTR 381, PHYS 310, and 28 points selected from ASTR 301-370. To graduate with a BSc in Astronomy a candidate must pass an approved academic writing test. In any Astronomy course that involves assessed laboratory or tutorial work, satisfactory attendance and performance in such work is required.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
ASTR 109	The Cosmos: Birth and Evolution	18	S2	R: PHYS 109, PHYS 110 EQ: PHYS 109
ASTR 112	Astrophysics	18	S1	
ASTR 211	Exploring the Sky	11	S2	P: 18 points from MATH 100-level, STAT 100-level, PHYS 100–106, PHYS111–116 or ASTR 112. 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.

ASTR 212	The Solar System and Dynamical Astronomy	11	NO	P: 18 points from MATH 100-level, STAT 100-level, PHYS 100–106, PHYS111–116 or ASTR 112. 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.
ASTR 321	Techniques in Observational Astronomy	14	NO	P: (1) 22 points from PHYS 221–224, ASTR 211, ASTR 212; (2) MATH 109 or MATH 127 R: PHYS 321 EQ: PHYS 321
ASTR 322	Theoretical and Observational Cosmology	14	S2	P: (1) 33 Pts from PHYS 221–224, PHYS 310; (2) MATH 109. R: PHYS 322 EQ: PHYS 322
ASTR 323	Stellar Structure and Evolution	14	S1	P: (1) 22 points from PHYS 221–224, ASTR 211, ASTR 212; (2) MATH 109 or MATH 127 R: PHYS 323 EQ: PHYS 323
ASTR 324	Special Topic	14	S2	P: (1) 22 points from PHYS 221–224, ASTR 211, ASTR 212; (2) MATH 109 or MATH 127
ASTR 325	Special Topic	14	S1	P: (1) 22 points from PHYS 221–224, ASTR 211, ASTR 212; (2) MATH 109 or MATH 127
ASTR 381	Advanced Experiments in Physics and Astronomy	14	SU2 S1 S2	P: (1) (PHYS 281 and 282 or 283) and 22 points from (PHYS 221-226 or ASTR 211, ASTR 212); (2) MATH 109. R: PHYS 381, PHYS 382, PHYS 383, ASTR 382, ASTR 383. EQ: PHYS 381
ASTR 391	Introductory Astronomy Research	14	SU2 S1 S2	P: (1) 44 points from ASTR 200-level, PHYS 200-level; (2) MATH 109. R: ASTR 392, ASTR 393

Biochemistry

To major in Biochemistry, a student must be credited with:

(a) BCHM 201 (prior to 2005) or BCHM 281 or CHEM 281; and

(b) 56 points from BCHM 300-level courses.

Students wishing to pursue a career in Biochemistry are advised to take BCHM 381, and should note that this course is required for entry into the MSc degree programme in Biochemistry. In all Biochemistry courses, a satisfactory performance is required in both the year's work and the examination. Students are required to wear approved safety glasses and laboratory coats to all Biochemistry laboratories.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
BCHM 201	Biochemistry 1	22	W	P: (1) BIOL 111; (2) Either (a) CHEM 114 and CHEM 115 or (b) CHEM 112.
BCHM 202	Biochemistry 2	11	S1	P: (1) BIOL 111; (2) BIOL 112 or BIOL 113 or CHEM 114 or CHEM 112. For students enrolled before 2002, CHEM 112 alone. R: BIOL 230
BCHM 205	Bio-organic Chemistry	11	S1	P: CHEM 112 or CHEM 115 R: CHEM 222, CHEM 262, ENCH 241
BCHM 206	Organic Chemistry	11	S2	P: BCHM 205 or ENCH 241 R: CHEM 222, CHEM 262
BCHM 207	Special Topic	11	W	P: Entry subject to approval of the Coordinator, Biochemistry
BCHM 281	Synthetic, Chemical and Biochemical Techniques	11	S2	P: CHEM 112 or CHEM 115 R: CHEM 281 EQ: CHEM 281

BCHM 301	Biochemistry 3	28	W	P: (1) BCHM201; (2) BCHM202 or BIOL230 (PAMS203/ ZOOL203). Entry with BCHM201 alone if taken before the year 2000 may be approved by HOD. R: BIOL 331 EQ: BIOL 331
BCHM 302	Biological Chemistry	28	W	P: Either (1) CHEM 222 or CHEM 262 or (2) BCHM 205 and either BCHM206 or BCHM201. Entry with BCHM201 alone if taken before the year 2000 may be approved by HOD. R: CHEM 325, ENCH 445 EQ: CHEM 325
BCHM 303	Special Topic	14	W	P: Entry subject to approval of the Coordinator, Biochemistry.
BCHM 381	Biochemical Techniques	14	S2	P: BCHM 201 (if taken prior to 2005) or BCHM 281 or CHEM 281

Biological Sciences

To major in Biological Sciences, students first enrolled after 2002 must have BIOL 111, 112 and 113. To gain a pass a student must do satisfactory practical work in laboratory classes and in field courses as well as performing satisfactorily in written tests and examinations.

Students who have not taken Chemistry to Year 13 secondary school level are strongly advised to take 18 points of Chemistry (e.g. CHEM 114) before enrolling in 200-level courses. BIOL 309 cannot be used as part of the minimum 56 points needed at 300-level to major in Biological Sciences. Students intending to enrol in fourth year courses must normally have gained the equivalent of at least 84 points in 300-level courses.

Students admitted to the Honours School or intending to proceed to a Masters degree are strongly advised to include BIOL 309 or an equivalent course in their undergraduate degree.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
BIOL 111	Cellular Biology and Biochemistry	18	S1	R: BIOL 101
BIOL 112	Ecology, Evolution and Conservation	18	S2	R: BIOL 102
BIOL 113	Diversity of Life	18	S1	R: BIOL 103, BIOL 104
BIOL 114	New Zealand Biodiversity and Biosecurity	18	S1	
BIOL 116	Human Biology	18	S2	
BIOL 209	Introduction to Biological Data Analysis	11	S1	P: 36 points 100-level BIOL. R: BIOL 301
BIOL 210	Vertebrate Biology	11	S2	P: BIOL 112 and BIOL 113 R: ZOOL 202
BIOL 211	Insect Biology	11	S2	P: BIOL 112 and BIOL 113 R: ZOOL 205
BIOL 212	Marine Biology	22	S1	P: (1) 18 points from BIOL 113, BIOL 114, BIOL 104; (2) 18 points from BIOL 111, BIOL 112, BIOL 101, BIOL 102. R: ZOOL 204, ZOOL 214
BIOL 213	Microbiology 1	11	S2	P: (1) BIOL 111; (2) BIOL 113 R: PAMS 206
BIOL 214	Diversity of Algae	11	S1	P: BIOL 113 R: PAMS 205
BIOL 215	Plant Diversity	11	S2	P: BIOL 113, or with the approval of the Head of School. R: PAMS 205
BIOL 230	Genetics	22	S1	P: BIOL 111 and BIOL 112 and either BIOL 113 or CHEM 114. Concurrent enrolment in one of the three (BIOL) prerequisite courses may be approved by the Head of the School of Biological Sciences. R: PAMS 203, ZOOL 203, BCHM 202

BIOL 250	Principles of Animal Physiology	22	S1	P: BIOL 111 R: ZOOL 206
BIOL 251	Exercise and Health	22	S2	P: BIOL 111 or BIOL 116. Students with other appropriate preparation may be admitted to this course with the approval of the Head of the School of Biological Sciences.
BIOL 252	Plant Organisation and Physiology	22	S2	P: BIOL 111 R: PAMS 202, FORE 214, FORE 219
BIOL 270	Ecology	22	S1	P: (1) BIOL 112; (2) BIOL 113 R: PAMS 204, FORE 202 EQ: FORE 202
BIOL 271	Evolution	11	S1	P: BIOL 112. This prerequisite may be replaced by a high level of achievement in an equivalent course as determined by the Head of the School of Biological Sciences. R: PAMS 205
BIOL 272	Principles of Animal Behaviour	11	S2	P: BIOL 112 or PSYC 104, or PSYC 105 and PSYC 106
BIOL 302	Special Topic	14	NO	
BIOL 303	Special Topic: Forensic Genetics	14	SU1	P: Entry subject to approval from Head of the School of Biological Sciences.
BIOL 304	Special Topic	14	NO	P: Entry subject to approval by the Head of School.
BIOL 305	Special Topic: Practical Taxonomy for Field Biologists	14	SU1	P: Entry subject to approval by the Head of School.
BIOL 306	Special Topic	14	W	P: Entry subject to approval by the Head of School.
BIOL 307	Special Topic	14	S2	P: Entry subject to approval by the Head of School.
BIOL 308	Special Topic	28	S2	P: Entry subject to approval by the Head of School.
BIOL 309	Experimental Design and Data Analysis for Biologists	14	S2	P: BIOL 209 or other statistical background as determined by the Head of School. R: BIOL 301
BIOL 313	Microbiology 2	28	S2	P: BIOL 213 R: PAMS 303
BIOL 330	Advanced Concepts in Genetics	28	S1	P: PAMS 203/ZOOL 203 or BIOL 230 R: PAMS 309/ZOOL 309
BIOL 331	Biochemistry 3	28	W	P: (1) BCHM 202 or PAMS 203/ZOOL 203 or BIOL 230; (2) BCHM201 R: PAMS 308, BCHM 301 EQ: BCHM 301
BIOL 351	Cell Biology	28	S2	P: BIOL 230 or BIOL 250 or BIOL 252 or BCHM 201 R: ZOOL 306
BIOL 352	Plant Biotechnology	28	S1	P: BIOL 252. For students enrolled before 2004, (1) BCHM 201 (2) either PAMS 202 or BIOL 252 (3) either BCHM 202 or PAMS 203/ZOOL 203 or BIOL 230. For students enrolled before 2003, 44 points from BCHM 201, PAMS 202, PAMS 203/ZOOL 203, PAMS 206. R: PAMS 310
BIOL 353	Comparative Physiology of Exercise	14	S1	P: BIOL 250 or BIOL 251 R: BIOL 350, ZOOL 301
BIOL 354	Animal Ecophysiology	14	S2	P: BIOL 250 or ZOOL 206 R: BIOL 350, ZOOL 301
BIOL 370	Terrestrial Ecology	28	S1	P: (1) BIOL 270; (2) BIOL 209 or equivalent preparation in statistics. For students enrolled before 2004, 22 points from PAMS 204, BIOL 270, FORE 202, ZOOL 202, BIOL 210, ZOOL 204, ZOOL 205, BIOL 211, ZOOL 214, BIOL 212. R: PAMS 304/ZOOL 304

BIOL 371	Evolutionary Biology	28	S1	P: PAMS 205 or BIOL 271. In exceptional circumstances this prerequisite may be replaced by a high level of achievement in other courses as determined by the Head of School. R: PAMS 306
BIOL 373	Behavioural Ecology	28	S1	P: (1) Either BIOL 271 or BIOL 272; (2) BIOL 209 or equivalent preparation in statistics. For students enrolled before 2004, 44 points from 200-level FORE, PAMS, PSYC, ZOOL, BIOL. R: ZOOL 307
BIOL 374	Marine Ecosystems	28	S2	P: BIOL 270 and BIOL 209. For students enrolled before 2004, 44 points from PAMS 204, BIOL 270, FORE 202, ZOOL 202, BIOL 210, ZOOL 204, ZOOL 205, BIOL 211, ZOOL 214, BIOL 212 R: BIOL 372, PAMS 311/ZOOL 311 RP: BIOL212
BIOL 375	Freshwater Ecosystems	28	S2	P: BIOL 270 and BIOL 209. For students enrolled before 2004, 44 points from PAMS 204, BIOL 270, FORE 202, ZOOL 202, BIOL 210, ZOOL 204, ZOOL 205, BIOL 211, ZOOL 214, BIOL 212 R: BIOL 372, PAMS 311/ZOOL 311
BIOL 376	Conservation, Biology and Management	28	S2	P: FORE 202 or FORE 214 or GEOG 201 or BIOL 270 R: CONS 301, FORE 430

Chemistry

To major in Chemistry, students must have at least:

(a) a combined credit of 36 points from CHEM 111-121; and

(b) a combined credit of at least 44 points from CHEM 221-263, BCHM 205 and BCHM 206; and

(c) passed CHEM 281 or BCHM 281, and CHEM 282; and

(d) 56 points from CHEM 300-level courses.

Students wishing to pursue a career in Chemistry are advised to take at least 56 points of courses from CHEM 321-363 courses, and either CHEM 381 or 382. Students should also note that entry into the MSc degree programme in Chemistry requires at least 56 points from CHEM 321-363 courses and either CHEM 381 or 382. Chemistry students are required to wear approved safety glasses in all laboratories and, where instructed, laboratory coats.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
CHEM 111	General Chemistry A	18	S1	R: CHEM 113, CHEM 121 EQ: CHEM 121
CHEM 112	General Chemistry B	18	S2	P: CHEM 111 or CHEM 113 or CHEM 121 R: CHEM 115
CHEM 113	Engineering Chemistry	18	S1	R: CHEM 111, CHEM 121
CHEM 114	Introductory Chemistry	18	S1	R: CHEM 105
CHEM 115	General Chemistry C	18	S2	P: CHEM 114. Entry without this pre-requisite is possible with permission of the HOD R: CHEM 112
CHEM 121	General Chemistry A	18	SU1	P: Satisfactory performance in the laboratory component of CHEM 111 or CHEM 113, or a pass in both CHEM 114 and CHEM 115. R: CHEM 111, CHEM 113 EQ: CHEM 111
CHEM 221	Inorganic and Structural Chemistry	22	W	P: CHEM 112 or CHEM 115 R: CHEM 261
CHEM 222	Organic Chemistry	22	W	P: CHEM 112 or CHEM 115 R: CHEM 262, ENCH 241, BCHM 205, BCHM 206

CHEM 224	Analytical and Environmental Chemistry	22	W	P: (1) CHEM 112 or CHEM 115, and (2) CHEM 111 or CHEM 113 or CHEM 121 C: Any single missing pre-requisite may be taken as a co-requisite. R: ENCH 241
CHEM 233	Introduction to Physical Chemistry	12	S1	P: CHEM 111 or CHEM 113 or CHEM 121 R: CHEM 223, CHEM 263, ENCH 241 (if credited prior to 2004)
CHEM 243	Physical Chemistry	12	S2	P: CHEM 111 or CHEM 113 or CHEM 121 R: CHEM 223, CHEM 263, CHEM 273
CHEM 261	Inorganic and Structural Chemistry	22	W	P: (1) CHEM 112 or CHEM 115; and (2) CHEM 111 or CHEM 113 or CHEM 121; and (3) subject to approval of the Head of Department R: CHEM 221, ENCH 241 (if credited prior to 2004)
CHEM 262	Organic Chemistry	22	W	P: (1) CHEM 111 or CHEM 113 or CHEM 121; (2) CHEM 112 or CHEM 115; and (3) subject to approval of the Head of Department. R: CHEM 222, ENCH 241, BCHM 205, BCHM 206
CHEM 273	Physical Chemistry	12	S2	P: (1) CHEM 111 or CHEM 113 or CHEM 121; and (2) subject to approval of the Head of Department R: CHEM 223, CHEM 263
CHEM 281	Synthetic, Chemical and Biochemical Techniques	11	S2	P: CHEM 112 or CHEM 115 R: BCHM 281 EQ: BCHM 281
CHEM 282	Measurement and Analysis	11	S1	P: (1) CHEM 111 or CHEM 113 or CHEM 121; or (2) CHEM 114 and CHEM 115. R: ENCH 241
CHEM 321	Inorganic and Structural Chemistry	28	W	P: CHEM 221 or CHEM 261 R: CHEM 361, ENCH 441
CHEM 322	Organic Chemistry	28	W	P: (1) CHEM 222 or CHEM 262; or (2) BCHM 205 and BCHM 206. R: CHEM 362, ENCH 442
CHEM 323	Applied Physical Chemistry	28	W	P: (1) CHEM 223 or CHEM 263; or (2) CHEM 233 and either CHEM 243 or CHEM 273 R: ENCH 443
CHEM 324	Analytical and Environmental Chemistry	28	W	P: (1) CHEM 223 or CHEM 224 or CHEM 263; or (2) CHEM 233 and either CHEM 243 or CHEM 273 R: ENCH 444
CHEM 325	Biological Chemistry	28	W	P: (1) CHEM 222 or CHEM 262; or (2) BCHM 205 and either BCHM 206 or BCHM 201. R: BCHM 302, ENCH 445 EQ: BCHM 302
CHEM 327	Special Topic	14	W	P: Entry subject to approval of the Head of Department.
CHEM 328	Special Topic	14	W	P: Entry subject to approval of the Head of Department.
CHEM 361	Inorganic and Structural Chemistry	28	W	P: (1) CHEM 221* or CHEM 261; and (2) CHEM281. *Entry with this prerequisite only with the permission of the HOD. C: CHEM 381
CHEM 362	Organic Chemistry	28	W	P: (1) CHEM 281; and (2) either (a) CHEM 222* or CHEM 262, or (b) BCHM 205* and BCHM 206*. *Entry with this prerequisite only with the permission of the HOD. C: CHEM 381 R: CHEM 322, ENCH 442

CHEM 363	Physical Chemistry	28	W	P: (1) CHEM 223* or CHEM 263; or (2) CHEM 233 and either CHEM 243* or CHEM 273; (3) CHEM 282; and (4) 36 points from courses in Mathematics, Statistics or ENGR 102. *Entry with this prerequisite only with the approval of the Head of Department. C: CHEM 382 R: ENCH 446
CHEM 381	Advanced Synthetic Techniques	14	S1	P: CHEM 281 or BCHM 281
CHEM 382	Instrumental Methods	14	S2	P: CHEM 282

Communication Disorders

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
CMDS 111	Introduction to Developmental Communication Disorders	18	S1	
CMDS 112	Introduction to Acquired Communication Disorders	18	S2	
CMDS 231	Acoustics and Phonetics	18	S1	
CMDS 232	Articulation and Phonology	10	S2	
CMDS 242	Introduction to Audiology	18	S1	
CMDS 261	Anatomy and Physiology of Speech and Hearing Mechanism	18	S1	
CMDS 262	Neurosciences	18	S2	

Computer Science

A prospectus which gives advice on course planning is available from the Department Administrator. Students seeking 56 points at 300-level in Computer Science by taking courses only in Computer Science must be credited with both MATH 115 (or MATH 231) and COSC 208. COSC 110 is highly recommended.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
COSC 110	Working in a Digital World	18	W	
COSC 121	Computer Science 1A	18	S1 S2	R: COSC 123
COSC 122	Computer Science 1B	18	S2	R: COSC 112, CMIS 112
COSC 208	C Programming	11	S1	P: (1) COSC 121 or COSC 123; (2) 18 points from Mathematics, Statistics, or Engineering Mathematics. MATH 115 (required to graduate in Computer Science) and STAT 111/STAT 131/STAT 112 are strongly recommended. MATH 101 is not acceptable. R: COSC 204, COSC 240, ENEL 208, ENCE 208 EQ: COSC 240, ENCE 208
COSC 221	Computer Systems	11	S2	P: 1) COSC121 or COSC123; (2) COSC122; (3) 18 points from Mathematics, Statistics or Engineering Mathematics. MATH115 (required to graduate in Computer Science) and STAT131/STAT111/STAT112 are strongly recommended. MATH101 is not acceptable. R: ENEL 221
COSC 222	Models of Computation	11	S1	P: 1) COSC121 or COSC123; (2) COSC122; (3) 18 points from Mathematics, Statistics or Engineering Mathematics. MATH115 (required to graduate in Computer Science) and STAT131/STAT111/STAT112 are strongly recommended. MATH101 is not acceptable. R: COSC 202

COSC 224	Introduction to Software Engineering	11	S2	P: 1) COSC121 or COSC123; (2) COSC122; (3) 18 points from Mathematics, Statistics or Engineering Mathematics. MATH115 (required to graduate in Computer Science) and STAT131/STAT111/STAT112 are strongly recommended. MATH101 is not acceptable. R: COSC 205
COSC 225	Human-Computer Interaction and Computer Graphics	11	S1	P: 1) COSC121 or COSC123; (2) COSC122; (3) 18 points from Mathematics, Statistics or Engineering Mathematics. MATH115 (required to graduate in Computer Science) and STAT131/STAT111/STAT112 are strongly recommended. MATH101 is not acceptable. R: COSC 314 before 2001.
COSC 226	Introduction to Databases	11	S1	P: 1) COSC121 or COSC123; (2) COSC122; (3) 18 points from Mathematics, Statistics or Engineering Mathematics. MATH115 (required to graduate in Computer Science) and STAT131/STAT111/STAT112 are strongly recommended. MATH101 is not acceptable. R: COSC 205
COSC 227	Probabilistic Methods and Information Theory	11	S2	P: 1) COSC121 or COSC123; (2) COSC122; (3) 18 points from Mathematics, Statistics or Engineering Mathematics. MATH115 (required to graduate in Computer Science) and STAT131/STAT111/STAT112 are strongly recommended. MATH101 is not acceptable. R: COSC 201
COSC 229	Algorithms	11	S2	P: 1) COSC121 or COSC123; (2) COSC122; (3) 18 points from Mathematics, Statistics or Engineering Mathematics. MATH115 (required to graduate in Computer Science) and STAT131/STAT111/STAT112 are strongly recommended. MATH101 is not acceptable. R: COSC 202
COSC 230	Programming Languages	11	S2	P: 1) COSC121 or COSC123; (2) COSC122; (3) 18 points from Mathematics, Statistics or Engineering Mathematics. MATH115 (required to graduate in Computer Science) and STAT131/STAT111/STAT112 are strongly recommended. MATH101 is not acceptable. R: COSC 202, COSC 302
COSC 231	Introduction to Data Communications	11	S1	P: 1) COSC121 or COSC123; (2) COSC122; (3) 18 points from Mathematics, Statistics or Engineering Mathematics. MATH115 (required to graduate in Computer Science) and STAT131/STAT111/STAT112 are strongly recommended. MATH101 is not acceptable.
COSC 240	Special Topic: C Programming	11	S1	P: 36 points from Mathematics, Statistics or Engineering Mathematics including MATH 171. MATH 115 (required to graduate in Computer Science) and STAT 131/STAT 111/STAT 112 are strongly recommended. MATH 101 is not acceptable. R: COSC 204, COSC 208, ENEL 208, ENCE 208 EQ: COSC 208, ENEL 208
COSC 241	Special Topic	11	S2	P: Entry subject to approval by the Head of Department.
COSC 242	Special Topic	11	S1	P: Entry subject to approval by the Head of Department.
COSC 243	Special Topic	11	S2	P: Entry subject to approval by the Head of Department.
COSC 314	Software Engineering	28	W	P: (1) 44 points of 200-level Computer Science including COSC 224 or COSC 205; (2) 36 points from Mathematics, Statistics or Engineering Mathematics. MATH115 (required to graduate in Computer Science) and STAT 111/STAT 131/STAT 112 are strongly recommended. MATH101 is not acceptable. RP:COSC 208, COSC 110, COSC 225

COSC 326	Database Management	14	S1	P: (1) 44 points of 200-level Computer Science including COSC 226 or COSC 205; (2) 36 points from Mathematics, Statistics or Engineering Mathematics. MATH 115 (required to graduate in Computer Science) and STAT 111/STAT 131/STAT 112 are strongly recommended. MATH 101 is not acceptable. RP: COSC208, COSC110
COSC 327	Performance Modelling and Simulation	14	S1	P: (1) 36 points from Mathematics, Statistics, or Engineering Mathematics. MATH 115 (required to graduate in Computer Science) and STAT 111/STAT 131/STAT 112 are strongly recommended. MATH 101 is not acceptable; (2) 44 points of 200-level Computer Science including COSC 227 or COSC 201 RP: COSC 208, COSC 209 (or COSC 204)
COSC 329	Algorithms and Artificial Intelligence	14	S1	P: (1) 36 points from Mathematics, Statistics or Engineering Mathematics. MATH 115 (required to graduate in Computer Science) and STAT 111/STAT 131/STAT 112 are strongly recommended. MATH 101 is not acceptable.(2) 44 points of 200-level Computer Science including COSC 229 or COSC 202 RP: COSC 208, COSC 110
COSC 331	Data Communications and Networks	14	S2	P: (1) 44 points of 200-level Computer Science including COSC 231; (2) 36 points from Mathematics, Statistics or Engineering Mathematics. MATH115 (required to graduate in Computer Science) and STAT 131/STAT 111/STAT 112 are strongly recommended. MATH 101 is not acceptable. RP: COSC 208, COSC 110 and COSC 227
COSC 332	Data and Network Security	14	S2	P: (1) 44 points of 200-level Computer Science including COSC 231; (2) 36 points from Mathematics, Statistics or Engineering Mathematics. MATH 115 (required to graduate in Computer Science) and STAT 131/STAT 111/STAT 112 are strongly recommended. MATH 101 is not acceptable. R: AFIS 323 RP: COSC 208, COSC 110 and COSC 227
COSC 361	Microprocessor Systems 1	14	S1	P: (1) 36 points from Mathematics, Statistics, or Engineering Mathematics. MATH 115 (required to graduate in Computer Science) and STAT 111/STAT 131/STAT 112 are strongly recommended. MATH 101 is not acceptable.(2) 44 points of 200-level Computer Science including COSC 221 R: ELEC 361 RP: COSC 208, COSC 110 EQ: ELEC 361
COSC 362	Microprocessor Systems 2	14	S2	P: (1) COSC361; (2) 44 points of 200-level Computer Science.36 points from Mathematics, Statistics or Engineering Mathematics. MATH 115 (required to graduate in Computer Science) and STAT 131/STAT 111/STAT 112 are strongly recommended. MATH 101 is not acceptable. C: A candidate must be enrolled in 56 points or more of 300-level Computer Science. (that is, this course should not be used as part of the 56 point Computer Science major requirement) R: ELEC 362 RP: COSC 208, COSC 110 EQ: ELEC 362

COSC 363	Computer Graphics	14	S2	P: (1) 36 points from Mathematics, Statistics or Engineering Mathematics. MATH115 (required to graduate in Computer Science) and STAT 131/STAT 111/STAT 112 are strongly recommended. MATH101 is not acceptable; (2) 44 points of 200-level Computer Science including COSC 208. RP: COSC 208, COSC 110
COSC 364	Special Topic	14	S1	P: Subject to approval of the Head of Department.
COSC 365	Special Topic: Distributed Computing Architectures	14	S2	P: Subject to approval of the Head of Department.
COSC 366	Special Topic	14	SU2	P: Entry subject to approval by the Head of Department.
COSC 367	Special Topic	14	S2	P: Entry subject to approval by the Head of Department.

Economics

Students seeking 56 points at 300-level in Economics as their major must be credited with: both ECON 201 and either ECON 204, or 230, or 231. Candidates who have not been credited with the MATH or STAT prerequisite courses shown in the Course Catalogue section may be admitted to courses if they have reached a standard satisfactory to the Head of the Department of Economics in the prerequisites or other approved courses. Refer to the Economics Department Handbook for further information.

Required for Honours: ECON201, and 204 or 230 or 231; and ECON211 or 213, or STAT212 and 214.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
ECON 104	Introduction to Microeconomics	18	S1 S2	R: ECON 101, ECON 106
ECON 105	Introduction to Macroeconomics	18	S1 S2	R: ECON 101
ECON 201	Macroeconomics	22	W	P: ECON 101, or ECON 105 and ECON 104. RP: 18 points from MATH 104 or MATH 105 or MATH 106 or MATH 108.
ECON 205	Economics of Developing Countries	22	NO	P: ECON 101, or ECON 104 and ECON 105.
ECON 209	International Trade	11	S1	P: ECON 101 or ECON 104 R: ECON 206
ECON 210	International Macroeconomics	11	S2	P: ECON 101, or ECON 104 and ECON 105. R: ECON 206
ECON 212	Economic Statistics	11	S1	P: (1) ECON 101 or ECON 104 or ECON 105; (2) 18 points from STAT courses. R: ECON 211
ECON 213	Introduction to Econometrics	11	S2	P: (1) ECON 101 or ECON 104 or ECON 105; (2) 18 points from STAT courses. With Head of Department discretion, a candidate who has not passed this pre-requisite but who is concurrently enrolled in an 18-point STAT course may be enrolled in ECON 213 if he or she has completed at least 50% of the STAT course at the start of the semester. R: ECON 211
ECON 221	Special Topic	11	NO	P: ECON 101, or ECON 104 and ECON 105.
ECON 222	Special Topic	11	NO	P: ECON 101 or ECON 104
ECON 223	Introduction to Game Theory for Business, Science and Politics	11	S1	P: Any 108 points from the BA, BCom, BForSc, BSc or LLB schedules.
ECON 224	Special Topic: Economics and Current Policy Issues	11	S2	P: ECON 101 or ECON 104
ECON 225	Special Topic	11	NO	P: ECON 101 or ECON 104
ECON 226	Special Topic	11	NO	P: (1) ECON 101 or ECON 105; (2) STAT 111 or STAT 131

ECON 230	Microeconomic Theory with Calculus	22	W	P: (1) ECON 101 or ECON 104; (2) MATH 104 or MATH 105 or MATH 106 or MATH 108 or MATH 116 R: ECON 231, ECON 204, ECON 550 (prior to 2006)
ECON 231	Microeconomic Theory and Applications	22	W	P: ECON 101 or ECON 104 R: ECON 230, ECON 204, ECON 550 (prior to 2006)
ECON 321	Microeconomic Analysis	14	S1	P: (1) ECON 204 or ECON 230 or ECON 231; (2) MATH 104 or MATH 105 or MATH 106 or MATH 108 or MATH 116; (3) 18 points from STAT courses. R: ECON 301
ECON 322	Game Theory	14	S2	P: (1) ECON 204 or ECON 230 or ECON 231; (2) MATH 104 or MATH 105 or MATH 106 or MATH 108 or MATH 116; (3) 18 points from STAT courses. R: ECON 301
ECON 323	Econometrics I	14	S1	P: (1) ECON 213 or (STAT 212 and STAT 214); (2) MATH 104 or MATH 105 or MATH 106 or MATH 108 R: ECON 303
ECON 324	Econometrics II	14	S2	P: ECON 323 R: ECON 303
ECON 325	Macroeconomic Analysis	14	S1	P: (1) ECON 201; (2) MATH 104 or MATH 105 or MATH 106 or MATH 108 or MATH116 R: ECON 305 RP: ECON 204 or ECON 230 or ECON 231
ECON 326	Monetary Economics	14	S2	P: (1) ECON 201; (2) MATH 104 or MATH 105 or MATH 106 or MATH 108 or MATH 116 R: ECON 305 RP: ECON 204, ECON 230 or ECON 231
ECON 327	Economic Analysis of Law	14	S2	P: ECON 204 or ECON 230 or ECON 231 R: ECON 306
ECON 328	Topics in Law and Economics	14	NO	P: ECON 204 or ECON 230 or ECON 231 R: ECON 306
ECON 329	Industrial Organisation	14	S2	P: ECON 204 or ECON 230 or ECON 231 R: ECON 310
ECON 330	Strategic Behaviour of Firms	14	S2	P: ECON 204 or ECON 230 or ECON 231 R: ECON 310
ECON 331	Economics of Finance I	14	S1	P: (1) ECON 204 or ECON 230 or ECON 231; (2) MATH 104 or MATH 105 or MATH 106 or MATH 108 or MATH 116; (3) 18 points from STAT courses. R: ECON 311
ECON 332	Economics of Finance II	14	NO	P: ECON 331 R: ECON 311
ECON 333	Special Topic: Experimental Economics	14	S2	P: ECON 204 or ECON 230 or ECON 231
ECON 334	Labour Economics	14	S1	P: (1) ECON 204 or ECON 230 or ECON 231
ECON 335	Public Economics I	14	S1	P: ECON 204 or ECON 230 or ECON 231 R: ECON 313
ECON 336	Public Economics II	14	S2	P: ECON 204 or ECON 230 or ECON 231 R: ECON 313 RP: ENGL 117 or an essay based course.
ECON 337	Health Economics I	14	S1	P: ECON 204 or ECON 230 or ECON 231 R: ECON 314 RP: ENGL 117 or an essay based course.
ECON 338	Special Topic: Health Economics II	14	NO	P: ECON 321 or ECON 335 or ECON 336 or ECON 337 R: ECON 314 RP: ENGL 117 or an essay based course.

ECON 339	Special Topic: The Economics of European Integration	14	S2	P: Any 108 points from the BA, BCom, BForSc, BSc or LLB schedules including ECON 104 and ECON 105 and at least 22 points above 100-level. RP: ENGL 117 or an essay based course
ECON 340	Special Topic	14	NO	P: ECON 201
ECON 341	Special Topic	14	NO	P: (1) ECON 201 and ECON 211 or ECON 213. (2) MATH 104 or MATH 105 or MATH 106 or MATH 108 or MATH 116
ECON 342	Special Topic: Quantitative Economic History	14	S2	P: ECON 211 or ECON 213
ECON 343	Economic Analysis of Intellectual Property	14	S1	P: ECON 204 or ECON 230 or ECON 231

Electronics

Students intending to advance in Electronics are strongly advised to include in their first year courses PHYS 113, PHYS 114, MATH 108, MATH 109, COSC 121 and COSC 122. It should be noted that PHYS 113 is offered in Semesters 1 and 2, and PHYS 114 is offered in Semester 2, and as a Summer Programme.

In second year, ELEC 225, 226, PHYS 224 and COSC 208 are strongly recommended. A major in Electronics requires COSC 208. A major in Electronics requires 56 points selected from ELEC 301-383, PHYS 312, 318, COSC 361, 362. This selection must include ELEC 321 and ELEC 381. In any Electronics course that involves assessed laboratory or tutorial work, satisfactory attendance and performance in such work is required.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
ELEC 225	Analogue Electronics	11	S1	P: (1) PHYS 113 and PHYS 114; and (2) MATH 108. These prerequisites may be replaced by a high level of achievement in NCEA Level 3 Physics and Mathematics with Calculus or another equivalent background, as approved by the Head of Department of Physics and Astronomy. R: PHYS 283, PHYS 225 RP: MATH 109 and COSC 122 EQ: PHYS 225
ELEC 226	Digital Electronics	11	S2	P: (1) Either PHYS 113 and PHYS 114, or COSC 122; and (2) 18 points from MATH 100. 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. R: PHYS 226 RP: MATH 109 and COSC 122. EQ: PHYS 226
ELEC 227	Fundamentals of Electronics	11	S1	P: (1) PHYS 113 and PHYS 114; (2) MATH 108. 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. R: ENME 339 RP: MATH 109 and COSC 122.
ELEC 228	Fundamentals of Power Electronics	11	S2	P: ELEC 227 R: ENME 338
ELEC 312	Applied Electromagnetism	14	S2	P: (1) PHYS 224 or ENEL 204; (2) MATH 109 or MATH 127 R: PHYS 312 EQ: PHYS 312
ELEC 321	Electronics Design	14	S1	P: (1) ELEC 225 and ELEC 226; (2) MATH 109.
ELEC 322	Industrial Electronics	14	S1	P: (1) 22 Pts of ELEC 225–228, including ELEC 226; (2) MATH 109.
ELEC 323	Instrumentation	14	S2	P: (1) 22 Pts of ELEC 225–228, including ELEC 226; (2) MATH 109. R: PHYS 319

ELEC 325	Special Topic	14	S1	P: Entry by permission of the Head of Department of Physics and Astronomy.
ELEC 326	Special Topic	14	S2	P: Entry by permission of the Head of Department of Physics and Astronomy.
ELEC 361	Microprocessor Systems 1	14	S1	P: (1) ELEC 226; (2) MATH109. R: COSC 361 EQ: COSC 361
ELEC 362	Microprocessor Systems 2	14	S2	P: (1) ELEC 361; (2) COSC 208. R: COSC 362 EQ: COSC 362
ELEC 381	Electronics Design Project	14	SU2 S1 S2	P: 28 points from ELEC 300 including ELEC 321. Entry subject to a supervisor, approved by the Head of Department of Physics and Astronomy, being available.

Engineering

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
ENGR 101	Foundations of Engineering	15	S1	
ENGR 102	Engineering Mechanics	18	S2	

Forestry

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
FORE 102	Forests and Societies	18	S1 S2	R: FORE 101, FORE 103, FORE 104, FORE 111, FORE 121
FORE 111	Trees, Forests and the Environment	9	S1	R: FORE 101, FORE 102, FORE 103, FORE 104, FORE 121
FORE 121	Forests and People	9	S1	R: FORE 101, FORE 102, FORE 103, FORE 104, FORE 111
FORE 218	Forest Health and Dendrology	18	S1	P: BIOL 112 and BIOL 113, or their equivalents.
FORE 219	Introduction to Silviculture	18	S2	P: BIOL 112 and BIOL 113, or their equivalents. R: PAMS 202, BIOL 252, FORE 214

Geography

Students intending to complete their undergraduate degrees with a major in Geography must normally take:

(a) any 36 points of 100-level Geography, and

(b) any 44 points of 200-level Geography, and

(c) any 56 points of 300-level Geography.

Students intending to proceed to the BA(Hons), MA, BSc(Hons), PGDipSc or MSc degree must have passed 84 points in 300-level courses approved by the Head of the Department of Geography, including GEOG 309 and at least 28 other points in 300-level Geography courses, or have passed 112 points at 300-level of which 56 points are in Geography and 56 points are in subjects approved by the Head of Department.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
GEOG 106	Global Environmental Change	18	S1	R: GEOG 103
GEOG 107	Sustainable Cities: Environmental and social perspectives on global urbanisation	18	S1	R: GEOG 103
GEOG 108	Resources and Sustainability	18	S2	R: GEOG 103
GEOG 201	Physical Geography	22	S1	P: Any 36 points of 100-level GEOG, excluding GEOG 105.
GEOG 202	Human Geography	22	S2	P: Any 36 points of 100-level GEOG, excluding GEOG 105.
GEOG 205	Introduction to Geographic Information Systems	22	S1	P: Any 36 points of 100-level GEOG, excluding GEOG 105 or any 108 points approved by HOD.
GEOG 206	Resource and Environmental Management	22	S2	P: Any 36 points of 100-level GEOG, excluding GEOG 105, or any 108 points approved by HOD.

GEOG 213	Remaking the New Europe	22	SU1	P: Any 36 points of 100-level GEOG, excluding GEOG 105, or any 108 points approved by HOD. R: GEOG 203, EURO 223 EQ: EURO 223
GEOG 214	Applications in Physical Geography	22	SU1	P: 36 points of 100-level GEOG, or any 108 points approved by the Head of Department.
GEOG 304	Southeast Asia: Development or Change	28	S1	P: 44 points of 200-level GEOG, or in special cases with approval of the HOD.
GEOG 305	Environmental Hazards and Management	28	S1	P: 44 points of 200-level GEOG, or in special cases with approval of HOD.
GEOG 309	Research Methods in Geography	28	S2	P: 44 points of 200-level GEOG, or in special cases with approval of the HOD. R: GEOG 204, GEOG 303
GEOG 310	Weather Systems	14	S2	P: 44 points of 200-level GEOG, including GEOG 201, or in special cases with approval of the HOD.
GEOG 311	Coastal Studies	14	S1	P: 44 points of 200-level GEOG including GEOG 201, or in special cases with approval of HOD.
GEOG 312	Glacial Processes	14	S2	P: 44 points of 200-level GEOG, including GEOG 201, or in special cases with approval of the HOD.
GEOG 313	Remote Sensing Data for Geographic Analysis	14	S2	P: 44 points of 200-level GEOG, including GEOG 205, or in special cases with approval of the HOD.
GEOG 314	Special Topic	14	S2	P: 44 points of 200-level GEOG including GEOG 202, or in special cases with approval of HOD.
GEOG 315	Special Topic: Gender, Space and Cultural Change	14	S1	P: 44 points of 200-level GEOG, including GEOG 202, or in special cases with approval of the HOD. R: GEND 309 EQ: GEND 309
GEOG 321	Special Topic: European Integration	28	S1	P: 44 points of 200-level GEOG, including at least one of GEOG 201 and GEOG 202. In special cases, entry may be granted by the Head of Department. R: GEOG 320 (prior to 2005); EURO 310 EQ: EURO 310
GEOG 322	Geography of Health	28	S2	P: 44 points of 200-level GEOG, or in special cases with approval of HOD.
GEOG 323	Spatial Data Analysis	14	S1	P: 44 points of 200-level Geography, including GEOG 205, or in special cases with approval of the Head of Department. R: GEOG 431
GEOG 324	Customising GIS	14	S2	P: 44 points of 200-level GEOG, including GEOG 205, and GEOG 323, or in special cases with approval of HOD.
GEOG 340	Field Based Geomorphic Applications	14	SU1	P: 44 points of 200-level GEOG, or in special cases with approval of the HOD.
GEOG 341	Burma (Myanmar): Geographies of Anti-Development	14	SU1	P: 44 points of 200-level Geography, including GEOG 202, or approval of the HOD.
GEOG 342	Political Geography and Political Corruption	14	NO	

Geology

All courses in the Department of Geological Sciences require laboratory and/or field work and include both practical and written examinations, with the exception of the Field Studies papers, which are assessed only on practical assignments. GEOL 111 and GEOL 112 are the core introductory papers and it is advisable to complete these, even where substitution of GEOL 113 or 114 has been allowed for 200-level. Passes in both GEOL 230 and GEOL 231 field papers, plus 44 other points from GEOL 200-level, are prerequisites for the advanced field papers GEOL 351 and 352.

Note that GEOL 351 and 352 (or attainment of a previous pass in GEOL 329, or GEOL 330) are required for entry to postgraduate courses. Students intending to proceed to BSc(Hons) in Geology or Engineering Geology, PGDipSc in Geology, PGDipEngGeol, or MSc in Geology or Engineering Geology, must also have a minimum of an additional 56 points in Geology at 300-level and 84 are recommended. At least 18 points of MATH 100-level, or a demonstrably equivalent standard in Mathematics, are a prerequisite for entry to ENGE 400-level.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
GEOL 111	Planet Earth: An Introduction to Geology	18	S1	R: ENCI 271
GEOL 112	Understanding Earth History	18	S2	P: R: ENCI 271 RP: GEOL 111
GEOL 113	Environmental Geohazards	18	S2	
GEOL 114	Geoarchaeology: Peopling the Pacific	18	S1	R: PACS 101 EQ: PACS 101
GEOL 230	Field Studies A	11	S1	P: GEOL 111 and GEOL 112 (GEOL 113 or GEOL 114 may be substituted for either of these provided a candidate has attained an overall B grade in GEOL 100-level courses, or a standard which is acceptable to the HOD). C: 11 points from any papers in GEOL 232-GEOL 236 offered in the same semester.
GEOL 231	Field Studies B	11	S2	P: GEOL 111 and GEOL 112 (GEOL 113 or GEOL 114 may be substituted for either of these provided a candidate has attained an overall B grade in GEOL 100-level courses, or a standard which is acceptable to the HOD). C: 11 points from any papers in GEOL 232–236 offered in the same semester.
GEOL 232	Earth Materials	11	S1	P: GEOL 111 and GEOL 112 (GEOL 113 or GEOL 114 may be substituted for either of these provided a candidate has attained an overall B grade in GEOL 100-level courses, or a standard which is acceptable to the HOD).
GEOL 233	Crustal Deformation Processes	11	S1	P: GEOL 111 and GEOL 112 (GEOL 113 or GEOL 114 may be substituted for either of these provided a candidate has attained an overall B grade in GEOL 100-level courses, or a standard which is acceptable to the HOD).
GEOL 234	Stratigraphy and Paleontology	11	S1	P: GEOL111 and GEOL112 (GEOL113 or GEOL114 may be substituted for either of these provided a candidate has attained an overall B grade in GEOL 100-level courses, or a standard which is acceptable to the HOD).
GEOL 235	Earth Surface Processes	11	S2	P: GEOL111 and GEOL112 (GEOL113 or GEOL114 may be substituted for either of these provided a candidate has attained an overall B grade in GEOL 100-level courses, or a standard which is acceptable to the HOD). RP: GEOL232 and GEOL234
GEOL 236	Earth Dynamics and Plate Tectonics	11	S2	P: GEOL 111 and GEOL 112 (GEOL 113 or GEOL 114 may be substituted for either of these provided a candidate has attained an overall B grade in GEOL 100-level courses, or a standard which is acceptable to the HOD).
GEOL 237	Special Topic	11	S1	P: Entry subject to HOD approval.
GEOL 238	Special Topic - Resource Geology	11	S2	P: Entry subject to HOD approval.
GEOL 331	Principles of Basin Analysis	14	S1	P: GEOL235 plus 11 additional points from GEOL 232-236. RP: GEOL234 and GEOL236
GEOL 333	Evolution of the Biosphere	14	S2	P: GEOL 112 and GEOL 234 plus 11 additional points from GEOL 232-236. With the permission of the HOD, 22 points from 200-level BIOL papers may be substituted for 22 points of 200-level GEOL. RP: GEOL 235

GEOL 334	Geodynamics and the Development of the New Zealand Region	14	S2	P: GEOL 236 plus 11 additional points from GEOL 232–235 RP: GEOL 233
GEOL 336	Magmatic Systems and Volcanology	14	S1	P: GEOL 232 plus 11 additional points from GEOL 233–236
GEOL 337	Economic Geology and Geophysical Exploration	14	S1	P: 22 points from GEOL 232–236.
GEOL 338	Engineering and Mining Geology	14	S2	P: GEOL 233 plus 11 additional points from GEOL 232–236
GEOL 339	Special Topic	14	S1	P: 22 points from GEOL 232–236.
GEOL 340	Special Topic	14	S2	P: 22 point from GEOL 221–226 and GEOL 232–236.
GEOL 342	Special Topic	14	S1	P: Entry subject to Head of Department approval.
GEOL 343	Special Topic	14	S2	P: Entry subject to Head of Department approval.
GEOL 344	Special Topic	14	S1	P: Entry subject to Head of Department approval.
GEOL 351	Advanced Field Studies A	14	S1	P: (1) GEOL 230; (2) GEOL 231 (3) 44 points from other GEOL 200-level courses C: 14 points from any papers in GEOL 331–338 offered in the same semester.
GEOL 352	Advanced Field Studies B	14	S2	P: (1) GEOL 230; (2) GEOL 231 (3) 44 points from other GEOL 200-level courses C: 14 points from any papers in GEOL331–338 offered in the same semester.

Health Studies

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
HLTH 101	Introduction to Health Studies	18	S2	

History and Philosophy of Science

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
HAPS 101	Cultures of Inquiry and the Origins of Science	18	SU1 S2	R: HAPS 402, PHIL 237, PHIL 257

Linguistics

Students wishing to satisfy the requirements of a degree by taking 300-level courses in Linguistics worth 56 points must pass LING 206 and LING 207 and obtain at least 18 points in any language other than English. The required 18 points in any language other than English may be replaced by proficiency in any language other then English at the discretion of the Head of Department.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
LING 101	The English Language	18	S1	R: ENGL 123, ENGL 112, LING 111
LING 102	Language and Society	18	S2	R: ENGL 323
LING 202	Semantics	22	S2	P: ENGL 123 or ENGL 112, or 18 points in PHIL, or 18 points in LING R: PHIL 251 EQ: PHIL 251
LING 203	Sociolinguistics	22	S1	P: ENGL 123 or ENGL 112 or LING 101 or LING 111 or subject to HOD approval. R: ENGL 226, ENGL 323
LING 205	Language Acquisition	22	S2	P: LING 101 or LING 111 or ENGL 112 or ENGL 123 or PSYC 104, or PSYC 105 and PSYC 106, or EDUC 105 or EDUC 110 or EDUC 111.
LING 206	Syntactic Theory	22	S1	P: LING 101 or LING 111 or ENGL 123 or ENGL 112 R: LING 201, LING 211
LING 207	Phonetics and Phonology	22	S2	P: LING 101 or LING 111 or ENGL 123 or ENGL 112 R: LING 201, LING 211

LING 209	Maori and Indigenous Language Revitalisation	22	S2	P: Any 18 points in 100-level courses in Aotahi: School of Maori and Indigenous Studies or 36 points in 100-level courses in Arts, Education, Fine Arts, Music and Social Work, or by permission of the Head of the School. R: MAOR 220, TREO 220 EQ: MAOR 220, TREO 220
LING 302	Morphology	28	W	P: LING 201 or LING 211 or LING 206 or LING 207
LING 303	New Zealand English	28	W	P: LING 201 or LING 211 or LING 203 or LING 207
LING 304	Historical Linguistics	28	S2	P: LING 201 or LING 211 or LING 206 or LING 207
LING 306	Topics in Syntactic Theory	28	S2	P: LING 201 or LING 206 or LING 211 R: LING 301, LING 311
LING 307	Topics in Phonetics and Phonology	28	S1	P: LING 201 or LING 207 or LING 211 R: LING 301, LING 311

Management Science

For courses in Management Science a pass in any prerequisite may be replaced by a level of attainment in the prerequisite, or its equivalent, acceptable to the Head of the Department of Management.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
MSCI 101	Management Science	18	S2	R: MSCI 102, MSCI 112
MSCI 110	Quantitative Methods for Business	18	S1	R: STAT 111, STAT 112
MSCI 204	Planning Methods for Management	22	S1	P: 18 points of MATH, MSCI or STAT R: MSCI 215
MSCI 210	Statistical Methods for Management	11	S1	P: (1) STAT 111 or STAT 112 or STAT 131; (2) 9 points from MSCI or MGMT or MATH 104 or MATH 105 or MATH 106 or MATH 107 or MATH 108 or MATH 109 or MATH 116 or MATH 127 or MATH 171. At the discretion of the HOD, the statistics prerequisite may be replaced by a high level of achievement in Bursaries Mathematics with Statistics. R: MSCI 202
MSCI 216	Linear Programming Methods	11	S2	P: (1) MSCI 215 or MSCI 204; (2) MATH 104 or MATH 105 or MATH 106 or MATH 107 or MATH 108 or MATH 109 or MATH 116 or MATH 127 or MATH 171 R: MSCI 201
MSCI 220	Introduction to Operations Management	11	S1	P: MSCI 102 and MSCI 112 or these may be replaced by MSCI 101. R: MSCI 203 RP: MGMT 101
MSCI 221	Production Planning and Control	11	S2	P: (1) STAT 111 or STAT 112 or STAT 131; (2) MSCI 102; (3) MSCI 112. At the discretion of the HOD, the statistics prerequisite may be replaced by a high level of achievement in NCEA Level 3 or Bursaries Mathematics with Statistics. R: MSCI 203 RP: MSCI 220
MSCI 308	Cases in Management Science	14	NO	P: MSCI 210, MSCI 215 and MSCI 221 C: 28 points 300-level MSCI R: MSCI 218
MSCI 310	Probabilistic MS/OR Models	14	S1	P: (1) MSCI 210 or 22 points of 200-level courses in STAT; (2) MATH 104 or MATH 105 or MATH 106 or MATH 107 or MATH 108 or MATH 109 or MATH 116 or MATH 127 or MATH 171 R: MSCI 302

MSCI 311	Simulation	14	S2	P: (1) MSCI 210 or 22 points of 200-level courses in STAT; (2) one of (COSC 121, AFIS 123, AFIS 125, ENEL 206, ENGR 250, MATH 171, MATH 280) or any course involving an appropriate level of computer programming as approved by the HOD. R: MSCI 302
MSCI 312	Forecasting and Decision Analysis	14	S2	P: (1) MSCI 210 or 22 points of 200-level courses in STAT; (2) MATH 104 or MATH 105 or MATH106 or MATH107 or MATH 108 or MATH 109 or MATH 116 or MATH 127 or MATH 171 (At the discretion of the HOD (2) may be replaced by good performance in (1)). R: MSCI 202
MSCI 315	Advanced Linear Programming	14	S1	P: (1) MSCI 215, (2) MSCI 216, (3) any one of COSC 121, AFIS 123, ENEL 206, ENGR 250, MATH 171, MATH 280, or any course involving an appropriate level of computer programming, as approved by the Head of Department. R: MSCI 301 RP: MATH 252 or MATH 254.
MSCI 316	Nonlinear Programming and Heuristics	14	S2	P: MSCI 215, MSCI 216 R: MSCI 301 RP: MSCI 315 and MATH 252 or MATH 254.
MSCI 320	Managing Operations	14	S2	P: (1) MSCI 220; (2) 22 points 200-level from MSCI, MGMT, or AFIS. R: MSCI 304 RP: MSCI 221
MSCI 321	Materials Management	14	S1	P: MSCI 220, MSCI 221 R: MSCI 303
MSCI 323	Quality Management	14	S2	P: (1) MSCI 220 and MSCI 221; (2) 22 points at 200-level from MSCI, MGMT, AFIS. R: MSCI 304
MSCI 324	Project Management	28	S1	P: (1) MSCI 220, MSCI 221 and 22 points from Commerce; or (2) 88 points at 200-level from Commerce or Engineering R: MSCI 304, MSCI 322, AFIS 313

Mathematics

The 100-level core Mathematics (Calculus and Linear Algebra) courses are MATH 108 and 109. MATH 108 is offered as a Semester 1 course, a Semester 2 course, and a Whole-year course. MATH 109 is available as a Semester 1 course, Semester 2 course, and a Summer Course.

To obtain 36 points at 100-level in core Mathematics, students can take any occurrence of MATH 108, followed by any of MATH 109. Such a route leads to enrolment in 200-level courses, and subsequently a degree with 300-level credits in Mathematics. If you only want 18 points of core mathematics, then the Whole-year occurrence of MATH 108 is a good option to consider, because it spreads the load throughout the year rather than just one semester.

Students who have not passed Year 12 Mathematics, or its equivalent, are strongly advised to enrol in MATH 101 before advancing to MATH 108. MATH 115 or 134 can be taken alone or credited with any other 100-level core Mathematics course. MATH 171 is intended for students who want to progress in applied mathematics. It is recommended that students who enrol in MATH 171 have already been credited with MATH 108, or are concurrently enrolled in the Whole-year occurrence of MATH 108.

Students majoring in Mathematics must complete 44 points from MATH 210-299 or equivalent, and at least 56 points from MATH 310-399. Satisfactory attendance at, and performance in, tutorials is required in all Mathematics courses.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
MATH 101	Introductory Mathematics with Applications	18	W	R: MATH 104, MATH 105, MATH 106, MATH 107, MATH 108, MATH 109, MATH 171

MATH 108	Mathematics 1C	18	W S1 S2	R: MATH 104, MATH 105, MATH 106
MATH 109	Mathematics 1D	18	SU2 S1 S2	P: MATH 106 or MATH 108. With the permission of Head of Department this prerequisite may be replaced by a high level of achievement in MATH 101. R: MATH 104, MATH 105, MATH 107
MATH 115	Discrete Mathematics 1	18	W	
MATH 134	Logic and Computability	18	SU1 S1	R: PHIL 134, PHIL 144, MATH 144 EQ: PHIL 134
MATH 171	Mathematical Modelling and Computation	18	S2	R: EMTH 171 (2005) RP: MATH 108
MATH 208	Logic A	22	S1	P: Any 18 points in Philosophy or Mathematics or Computer Science. R: PHIL 225, PHIL 246, PHIL 346, PHIL 208, PHIL 308, MATH 308
MATH 209	Logic B	22	NO	P: Any 18 points in Philosophy or Mathematics or Computer Science. R: PHIL 225, PHIL 247, PHIL 347, PHIL 209, PHIL 309, MATH 309
MATH 221	Algebra and Cryptography	11	S1	P: MATH 104 or MATH 105 or MATH 106 or MATH 107 or MATH 108 or MATH 109 or MATH 115 R: MATH 211, MATH 315
MATH 222	Groups and Symmetry	11	S2	P: MATH 104 or MATH 105 or MATH 106 or MATH 107 or MATH 108 or MATH 109 or MATH 115 R: MATH 211
MATH 231	Discrete Methods	11	S2	P: MATH 104 or MATH 105 or MATH 106 or MATH 107 or MATH 108 or MATH 109 or MATH 115 R: MATH 215
MATH 243	Analysis 2	11	S1	P: MATH 104 or MATH 105 or MATH 107 or MATH 109 R: MATH 212
MATH 251	Linear Systems	11	S1	P: MATH 104 or MATH 105 or MATH 107 or MATH 109 R: MATH 204, MATH 217, MATH 254, EMTH 203, EMTH 204
MATH 252	Matrix Algebra 2	11	S2	P: MATH 104 or MATH 105 or MATH 107 or MATH 109 R: MATH 204, MATH 217, MATH 254, EMTH 203, EMTH 204
MATH 254	Linear Algebra 2	22	S2	P: MATH 104 or MATH 105 or MATH 107 or MATH 109 and Head of Department approval. R: MATH 204, MATH 217, MATH 251, MATH 252, EMTH 203, EMTH 204
MATH 261	Multivariate Calculus	11	S1	P: MATH 104 or MATH 105 or MATH 107 or MATH 109 R: MATH 204, MATH 218, MATH 219, MATH 264, EMTH 201, EMTH 202, EMTH 204, EMTH 210
MATH 262	Differential Equations and Transforms	11	S2	P: MATH 104 or MATH 105 or MATH 107 or MATH 109 R: MATH 204, MATH 218, MATH 219, MATH 264, EMTH 201, EMTH 202, EMTH 204, EMTH 210
MATH 264	Multivariate Calculus and Differential Equations	22	S1	P: MATH 104 or MATH 105 or MATH 107 or MATH 109 and Head of Department approval. R: MATH 204, MATH 218, MATH 219, MATH 261, MATH 262, EMTH 201, EMTH 202, EMTH 204, EMTH 210, EMTH 264

MATH 271	Mathematical Modelling and Computation 2	11	S2	P: (MATH 171 or MATH 280 or MATH 281 or MATH 282) AND (EMTH 201 or EMTH 202 or EMTH 204 or EMTH 210 or MATH 261 or MATH 264). Or high grade in MATH 104, MATH 105, MATH 107 or MATH 109 and Head of Department approval. R: MATH 266, EMTH 271
MATH 282	Introduction to Scientific Computing	11	SU1	P: MATH 104 or MATH 105 or MATH 107 or MATH 109 R: MATH 280, MATH 281
MATH 301	Mathematics in Perspective	14	S1	P: (1) 36 points in Mathematics or Statistics or Engineering Mathematics at 100-level; (2) 44 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 Department.
MATH 305	Mathematics Project	14	SU2	P: 44 points from MATH 210-299, and approval of HOD. R: STAT 305
MATH 308	Logic A	28	NO	P: Any 22 points at 200-level in Philosophy or Mathematics or Computer Science or Engineering Mathematics R: PHIL 208, PHIL 225, PHIL 246, PHIL 308, PHIL 346, MATH 208
MATH 309	Logic B	28	NO	P: Any 22 points at 200-level in Philosophy or Mathematics or Computer Science or Engineering Mathematics R: PHIL 209, PHIL 225, PHIL 247, PHIL 309, PHIL 347, MATH 209
MATH 321	Fields and Commutative Rings	14	S1	P: MATH 221 or MATH 222 (or MATH 254 or EMTH204 with HOD permission) R: MATH 311
MATH 322	Group Theory	14	NO	P: MATH 221 or MATH 222 (or MATH 254 or EMTH204 with HOD permission) R: MATH 311
MATH 323	Algebraic Computing	14	NO	P: Either 44 points in MATH 221, MATH 222, MATH 231, MATH 251, MATH 252, MATH 254, EMTH 203, EMTH 204 or 22 points at 200-level Maths with HOD approval.
MATH 333	Coding Theory	14	S1	P: Either 44 points in MATH 221, MATH 222, MATH 231, MATH 251, MATH 252, MATH 254, EMTH 203, EMTH 204 or 22 points at 200-level Maths with HOD approval. R: MATH 315
MATH 334	Combinatorics	14	S2	P: Either 22 points from MATH 221, MATH 222, MATH 231, MATH 251, MATH 252, MATH 254, EMTH 203, EMTH 204 or 22 points at 200-level Maths with HOD approval. R: MATH 315
MATH 335	Computability Theory	14	NO	P: COSC 222 or PHIL 246 or 22 points in MATH or EMTH at 200-level, as approved by the Head of Department.
MATH 336	Foundations of Mathematics	14	S2	P: 22 points from MATH 221-282 or EMTH 200-204 or EMTH 210-271; or approval of HOD. R: MATH 208, MATH 308
MATH 342	Applications of Complex Variables	14	S2	P: Either (1) 22 points from MATH 219, MATH 264, EMTH 204 or (2) MATH 261 and MATH 262 or (3) MATH 243 or (4) EMTH 202 R: MATH 319
MATH 343	Metric, Normed and Hilbert Spaces	14	S1	P: Either (1) MATH 243 or MATH 264 or EMTH 202 or (2) 22 points from MATH 200 or EMTH 200 as approved by the Head of Department. R: MATH 312

MATH 346	Computational Approximation	14	NO	P: 11 points from MATH 251, MATH 254, MATH 266, EMTH 203 or EMTH 204 RP: MATH 271 or MATH 280 or MATH 281 or MATH 282
MATH 352	Applied Matrix Algebra A	14	S1	P: Either MATH 251 or MATH 252 or MATH 254 or EMTH 203 or EMTH 204 R: MATH 317 RP: MATH 280 or MATH 281 or MATH 282 or MATH 271
MATH 353	Applied Matrix Algebra B	14	S2	P: Either MATH 252 or MATH 254 or EMTH 203 or EMTH 204 R: MATH 317 RP: (MATH 251 or MATH 352) and (MATH 271, MATH 280, MATH 281 or MATH 282)
MATH 361	Partial Differential Equations	14	S1	P: 22 points from MATH 219, MATH 261, MATH 262, MATH 264, EMTH 202, EMTH 204 R: MATH 314, MATH 318, MATH 319
MATH 362	Advanced Partial Differential Equations	14	NO	P: MATH 361 R: MATH 314
MATH 363	Dynamical Systems	14	S2	P: 22 points from MATH 219, MATH 261, MATH 262, MATH 264, EMTH 202, EMTH 204 R: MATH 318 RP: MATH 252, MATH 254 or EMTH 203
MATH 371	Vector Calculus and Modelling	14	S1	P: MATH 219 or MATH 264 or MATH 261 or MATH 262 or EMTH 202 or EMTH 204. R: MATH 318
MATH 376	Applied Stochastic Modelling	14	S2	P: (1) 11pts from STAT 212, STAT 214, STAT 216 and a further 11 pts from STAT 210 to STAT 299; (2) MATH109 or MATH199 R: STAT 316 RP: STAT 212, STAT 216 and 11 points from MATH 252, MATH 254, MATH 261, MATH 262, MATH 264, EMTH 202, EMTH 203, EMTH 204. EQ: STAT 316
MATH 381	Advanced Scientific Computing	14	S2	P: (MATH 261 or MATH 262 or MATH 264 or EMTH 202 or EMTH 204) and (MATH 266 or MATH 271 or MATH 280 or MATH 282) R: MATH 366, MATH 367
MATH 391	Special Topic: Cryptography	14	S2	
MATH 392	Special Topic	14	S2	

Philosophy

Students completing a BSc in Philosophy must be credited with at least 136 points in Philosophy, including at least 44 points in Philosophy at 200-level, including PHIL 233, and 56 points in Philosophy at 300-level, which must include at least one of PHIL 305, 308, 309, 310, 311, 315, 317, or 318. For the purpose of these regulations, HAPS 101 or MATH 134 or MATH 144 may be counted as 18 points in Philosophy at 100-level; LING 202, MATH 208, or MATH 209 may be counted as 22 points in Philosophy at 200-level; and MATH 308 or MATH 309 at 300-level. To enter PHIL 200-level courses, it is sufficient to pass one course in Philosophy at 100-level. Students without this prerequisite but with at least a B average in 72 points in appropriate courses may be admitted with approval of the Head of the School of Philosophy and Religious Studies.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
HAPS 101	Cultures of Inquiry and the Origins of Science	18	SU1 S2	R: HAPS 402, PHIL 237, PHIL 257
PHIL 110	Science: Good, Bad, and Bogus	18	S1	
PHIL 132	God, Mind and Freedom	18	S2	R: PHIL 138 (prior to 2006)
PHIL 133	Philosophy and Human Nature	18	S1	

PHIL 134	Logic and Computability	18	SU1 S1	R: MATH 134, MATH 144, PHIL 144 EQ: MATH 134
PHIL 138	Truth and Reason	18	S1	R: PHIL 132 (prior to 2006), PHIL 134/MATH 134
PHIL 139	Ethics, Politics and Justice	18	S2	R: PHIL 136
PHIL 208	Logic A	22	S1	P: Any 18 points in Philosophy or Mathematics or Computer Science or Linguistics. R: PHIL 225, PHIL 246, PHIL 346, PHIL 308, MATH 208, MATH 308
PHIL 209	Logic B	22	NO	P: Any 6 points in Philosophy or Mathematics or Computer Science or Linguistics R: PHIL 225, PHIL 247, PHIL 347, PHIL 309, MATH 209, MATH 309
PHIL 223	Philosophy of Science	22	S1	P: 18 points in PHIL, or B average in 72 points of appropriate courses with approval of the Head of School. R: EDUC 631, HAPS 401 and PHIL 323
PHIL 224	Greek Philosophy	22	S2	P: 18 points in PHIL, or B average in 72 points of appropriate courses wih approval of the Programme Director. R: CLAS 224, CLAS 324 EQ: CLAS 224
PHIL 233	Epistemology and Metaphysics	22	S1	P: 18 points in PHIL or B average in 72 points of appropriate courses with approval of the Head of School.
PHIL 235	Cyberspace, Cyborgs, and the Meaning of Life	22	S2	P: Any 18 points in Philosophy or Mathematics or Computer Science; or a B average in 72 points of appropriate courses with approval of the Head of School.
PHIL 236	Ethics	22	S1	P: 18 points in PHIL or B average in 72 points of appropriate courses with approval of the Programme Director.
PHIL 237	History of Science	22	NO	P: 18 points in PHIL, or 72 points in science subjects approved by the Head of School, or B average in 72 points of appropriate courses with approval of the Head of School. R: PHIL 237, EDUC 632, HAPS 402
PHIL 238	Cognitive Science	22	S2	P: 18 points in PHIL, or 18 points in an appropriate science subject with the approval of the PHIL Programme Director.
PHIL 240	Biomedical Ethics	22	S2	P: 18 points in PHIL or a B average in 72 points in relevant subjects, (eg PAMS, ZOOL, POLS, ECON, SPTH, LAWS, CMDS) as approved by the Head of School.
PHIL 251	Semantics	22	S2	P: ENGL 123 or ENGL 112, or 18 points in PHIL, or 18 points in LING R: LING 202 EQ: LING 202
PHIL 305	Philosophical Logic	28	S2	P: Any 22 points at 200-level in Philosophy or Mathematics or Computer Science courses as approved by the Head of School. R: PHIL 315
PHIL 308	Logic A	28	S1	P: Any 22 points at 200-level in Philosophy or Mathematics or Computer Science or Engineering Mathematics. R: PHIL 225, PHIL 246, PHIL 346, PHIL 208, MATH 208, MATH 308

PHIL 309	Logic B	28	NO	P: Any 22 points at 200-level in Philosophy or Mathematics or Computer Science R: PHIL 225, PHIL 246, PHIL 346, PHIL 209, MATH 209, MATH 309
PHIL 310	History of Philosophy	28	S1	P: 62 points in PHIL, at least 44 at 200-level
PHIL 311	Recent and Contemporary Philosophy	28	S2	P: 62 points in PHIL, at least 44 at 200-level R: PHIL 464 (from 2006)
PHIL 317	Contemporary Political Philosophy	28	S1	P: PHIL 236 or POLS 201 or PHIL 239 or B average in 66 points above 100-level in relevant subjects (e.g. PHIL, POLS, ECON, MSCI, LAWS, or SOCI) with approval of the Programme Director. R: POLS 301 EQ: POLS 301
PHIL 318	Special Topic: Philosophy of Religion	28	S1	P: 62 points in PHIL, at least 44 at 200-level, with approval of the Head of School. R: RELS 210 and PHIL 229
PHIL 320	Special Topic	28	W	P: 62 points in Philosophy, at least 44 at 200-level with approval of the Head of School.
PHIL 321	Special Topic: Ethics	28	S1	P: 62 points in Philosophy, at least 44 at 200-level, with approval of the Head of School.
PHIL 323	Philosophy of Science	28	S1	P: 62 points in Philosophy, at least 44 at 200-level. R: PHIL 223

Physics

Students intending to advance in Physics are strongly advised to include in their first year courses PHYS 113, PHYS 114, MATH 108 and MATH 109. It should be noted that PHYS 113 is offered in Semesters 1 and 2, and PHYS 114 is offered in Semester 2, and as a Summer Programme. In second year, PHYS 221-224, 226, 281, 282, and one of MATH 261, 264 are strongly recommended.

A major in Physics requires 22 points from MATH 251-264. A major in Physics requires 56 points selected from PHYS 301-383, ASTR 301-370, ELEC 321, 323. This selection must include PHYS 310 and PHYS 381. A student may be permitted by the HOD to obtain a double major in Physics and Mathematics without PHYS 381.

To graduate with a BSc in Physics a candidate must pass an approved academic writing test. In any Physics course that involves assessed laboratory or tutorial work, satisfactory attendance and performance in such work is required.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
PHYS 106	Physics for Biological and Earth Sciences	18	S2	R: PHYS 111
PHYS 109	The Cosmos: Birth and Evolution	18	S2	R: ASTR 109, PHYS 110 EQ: ASTR 109
PHYS 111	Introductory Physics for Physical Sciences and Engineering	18	S1	R: PHYS 106. Students who have been credited with any of PHYS 112, PHYS 113, PHYS 114, PHYS 115, or PHYS 116 cannot subsequently be credited with PHYS 111.
PHYS 113	Waves, Thermodynamics and Materials	18	S1 S2	P: PHYS 111 or PHYS 106 or 18 credits NCEA Level 3 Physics and 18 credits NCEA Level 3 Mathematics with Calculus. These prerequisites may be replaced by other background as approved by the Head of Department. R: PHYS 112
PHYS 114	Electrical and Quantum Physics	18	SU2 S2	P: (1) PHYS 113; or (2) 20 credits NCEA Level 3 Physics and 20 Credits NCEA Level 3 Mathematics with Calculus. These prerequisites may be replaced by other background as approved by the Head of Department. R: PHYS 115, PHYS 116.

PHYS 221	Waves, Optics and Circuits	11	S1	P: (1) PHYS 113; (2) PHYS 114; (3) MATH 108. These prerequisites may be replaced by a high level of achievement in Level 3 NCEA Physics and Mathematics with Calculus or other background as approved by the Head of Department. RP: MATH 109
PHYS 222	Quantum Physics	11	S2	P: (1) PHYS 113; (2) PHYS 114; (3) MATH 108. These prerequisites may be replaced by a high level of achievement in Level 3 NCEA Physics and Mathematics with Calculus or other background as approved by the Head of Department. RP: MATH 109
PHYS 223	Newtonian and Relativistic Mechanics	11	S1	P: (1) PHYS 113; (2) PHYS 114; (3) MATH 108. These prerequisites may be replaced by a high level of achievement in Level 3 NCEA Physics and Mathematics with Calculus or other background as approved by the Head of Department. RP: MATH 109
PHYS 224	Electricity and Magnetism	11	S2	P: (1) PHYS 113; (2) PHYS 114; (3) MATH 108. These prerequisites may be replaced by a high level of achievement in Level 3 NCEA Physics and Mathematics with Calculus or other background as approved by the Head of Department. RP: MATH 109
PHYS 225	Analogue Electronics	11	S1	P: (1) PHYS 113 and PHYS 114; and (2) MATH 108. These prerequisites may be replaced by a high level of achievement in NCEA Level 3 Physics and Mathematics with Calculus or another equivalent background, as approved by the Head of Department of Physics and Astronomy. R: ELEC 225 RP: MATH 109 and COSC 122 EQ: ELEC 225
PHYS 226	Digital Electronics	11	S2	P: (1) Either PHYS 113 and PHYS 114, or COSC 122; and (2) 18 points from MATH 100. 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. R: ELEC 226 RP: MATH 109 and COSC 122. EQ: ELEC 226
PHYS 281	Laboratory Techniques	11	S1	P: (1) PHYS 113; (2) PHYS 114; (3) 18 points from MATH 100. These prerequisites may be replaced by a high level of achievement in NCEA Physics and Mathematics with Calculus or other background as approved by the Head of Department. RP: MATH 109.
PHYS 282	Experimental Physics	11	S2	P: PHYS 281
PHYS 310	Thermal Statistical and Particle Physics	14	S1	P: (1) 22 points from PHYS 221–224; (2) MATH 109 or MATH 127
PHYS 311	Quantum Mechanics	14	S1	P: (1) 22 points from PHYS 221–224; (2) MATH 109 or MATH 127
PHYS 312	Applied Electromagnetism	14	S2	P: (1) 22 points from PHYS 221–224; (2) MATH 109 or MATH 127 R: ELEC 312 EQ: ELEC 312
PHYS 314	Condensed Matter Physics	14	S2	P: (1) 22 points from PHYS 221–224; (2) MATH 109 or MATH 127

PHYS 316	Geophysical Fluid Dynamics	14	S2	P: (1) 22 points from PHYS 221–224; (2) MATH 109 or MATH 127
PHYS 318	Computational Physics	14	S1	P: (1) 22 points from PHYS 221–224; (2) MATH 109 or MATH 127
PHYS 321	Techniques in Observational Astronomy	14	NO	P: (1) 22 points from PHYS 221–224, ASTR 211, ASTR 212; (2) MATH 109 or MATH 127 R: ASTR 321 EQ: ASTR 321
PHYS 322	Theoretical and Observational Cosmology	14	S2	P: (1) 33 Pts from PHYS 221–224, PHYS 310; (2) MATH 109. R: ASTR 322 EQ: ASTR 322
PHYS 323	Stellar Structure and Evolution	14	S1	P: (1) 22 points from PHYS 221–224, ASTR 211, ASTR 212; (2) MATH 109 or MATH 127 R: ASTR 323 EQ: ASTR 323
PHYS 326	Classical Mechanics and Symmetry Principles	14	S1	P: PHYS 223 and MATH 261 or MATH 264
PHYS 327	Special Topic	14	S1	P: (1) HOD approval; (2) MATH 109 or MATH 127
PHYS 328	Special Topic	14	S2	P: (1) HOD approval; (2) MATH 109 or MATH 127
PHYS 329	Special Topic	14	S1	
PHYS 381	Advanced Experimental Physics and Astronomy	14	SU2 S1 S2	P: (1) (PHYS 281 and PHYS 282 or PHYS 283) and 22 points from PHYS 221–226; (2) MATH 109 R: ASTR 381, ASTR 382, ASTR 383, PHYS 382, PHYS 383 EQ: ASTR 381
PHYS 391	Introductory Physics Research	14	SU2 S1 S2	P: (1) MATH 109 or MATH 127. Entry subject to a supervisor approved by the Head of Department, being available; (2) 44 points from PHYS 200. R: PHYS 392, PHYS 393

Psychology

Students intending to major in Psychology must include:

(a) PSYC 105 and PSYC 106, or PSYC 104 (prior to 2005);

(b) PSYC 206; and

(c) one from PSYC 207-211, and

(d) one from PSYC 331-335, 343, and

(e) one further PSYC 300-level course, and

(f) one further PSYC 200- or PSYC 300-level course.

Students who wish to proceed to higher postgraduate degrees in Psychology must satisfy these requirements and in addition have been credited with PSYC 344. Students intending to apply for the MSc in Applied Psychology must also complete PSYC 336. Students who wish to become eligible to apply for the Diploma in Clinical Psychology need to complete PSYC 335 or an equivalent course.

Note: COSC 110 and/or STAT 111 or 131 are recommended as useful preparation for students progressing beyond 100-level in Psychology.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
PSYC 105	Introductory Psychology - Brain, Behaviour and Cognition	18	S1	R: PSYC 103, PSYC 104
PSYC 106	Introductory Psychology - Social, Personality and Developmental	18	S2	R: PSYC 103, PSYC 104
PSYC 206	Research Design and Statistics	22	S1	P: PSYC 104, or PSYC 105 and PSYC 106 R: PSYC 201, PSYC 202, PSYC 204, PSYC 205
PSYC 207	Developmental Psychology	22	S1	P: PSYC 104, or PSYC 105 and PSYC 106 R: PSYC 201, PSYC 202, PSYC 204, PSYC 205

PSYC 208	Cognition	22	S2	P: PSYC 104, or PSYC 105 and PSYC 106, or with the approval of the HOD, a pass in a professional year of Engineering, or COSC 121 and COSC 122 or LING 101, or LING 111, or ENGL 123 or PHIL 137. R: PSYC 201, PSYC 202, PSYC 204, PSYC 205, PSYC 312
PSYC 209	Sensation, Perception and Language	22	S1	P: PSYC 104, or PSYC 105 and PSYC 106, or with the approval of the HOD a pass in a professional year of Engineering, or ARTT 101, or 36 points in Art History, or COSC 121 and COSC 122 or LING 101, or LING 111, or ENGL 123. R: PSYC 201, PSYC 202, PSYC 204, PSYC 205, PSYC 312
PSYC 211	Personality	22	S2	P: PSYC 104, or PSYC 105 and PSYC 106
PSYC 331	Psychological Theory	28	NO	P: 22 points from PSYC 206–211, or PSYC 104, or PSYC 105 and PSYC 106, plus 22 advanced points from a cognate course approved by the HOD. R: PSYC 316, PSYC 320 RP: 6 further points from PSYC 200/PSYC 300.
PSYC 332	Social Psychology	28	S1	P: PSYC 206 R: PSYC 305, PSYC 313 RP: 6 further points from PSYC 200.
PSYC 333	Biological Psychology	28	S1	P: PSYC 206 R: PSYC 203, PSYC 307, PSYC 321 RP: 6 further points from PSYC 200/PSYC 300.
PSYC 334	Learning and Behaviour Analysis	28	W	P: PSYC 206 or EDUC 224 or EDUC 324 or EDUC 230 or EDUC 330 R: PSYC 318
PSYC 335	Abnormal Psychology	28	W	P: PSYC 206 R: SOWK 101B RP: PSYC 207, PSYC 211
PSYC 336	Industrial and Organisational Psychology	28	W	P: PSYC 206 RP: PSYC211, 6 further points from PSYC 200
PSYC 338	Family Psychology	28	S2	P: Either one of PSYC 206 or PSYC 207, or PSYC 105 and PSYC 106 (or PSYC 104); plus at least 22 points at 200-level or above approved by the HOD.
PSYC 339	Health Psychology and Behaviour Change	28	S2	P: EITHER 22 points from PSYC 206–211 OR PSYC 105 and PSYC 106 (or PSYC 104); plus any advanced course in Health Sciences approved by the HOD of Psychology.
PSYC 340	Cognitive Psychology	28	W	P: PSYC 208
PSYC 341	Special Topic	28	W	P: PSYC 206
PSYC 342	Special Topic	28	W	P: PSYC 206
PSYC 343	Psychology of Adult Development	28	S2	P: Either 22 points from PSYC 206–211 OR PSYC 105 and PSYC 106 (or PSYC 104); plus 22 points from a course approved by the HOD. R: PSYC 207 (taken prior to 2003).
PSYC 344	Research Methods	28	S2	P: PSYC 206

Science, Maori and Indigenous Knowledge

Note: This is an integrated multi-disciplinary course between the School of Maori and Indigenous Studies and the College of Science.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
SCIM 101	Science, Maori and Indigenous Knowledge	18	S2	

Soil Science

Students who have not taken Chemistry to NCEA Level 3 are strongly advised to take CHEM 111/121 and 112, or CHEM 113 and 112, or CHEM 114 and CHEM 115 before enrolling in SOIL 203.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
SOIL 203	Soil Fertility	22	S2	P: 36 points from CHEM, GEOL or BIOL. R: SOIL 201

Statistics

STAT 111, 112 and 131 are alternative courses, STAT 131 requiring the higher standard of entry. Either will satisfy the prerequisites for 200-level Statistics courses and subsequently lead to a degree with 300-level courses in Statistics. Statistics 112 repeats STAT 111 in Semester 2. Students majoring in Statistics must complete MATH 109 or MATH 199, 33 points from STAT 210-299, and 56 points from STAT 310-399.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
STAT 111	Statistics 1	18	W	R: STAT 112, STAT 131
STAT 112	Statistics 1	18	S2	R: STAT 112, STAT 131
STAT 131	Statistics 1A	18	NO	R: STAT 111, STAT 112
STAT 212	Statistical Distributions	11	S1	P: (1) MATH 104 or MATH 105 or MATH 106 or MATH 107 or MATH 108 or MATH 109; (2) STAT 111 or STAT 112 or STAT 131 R: STAT 221, STAT 223, STAT 231
STAT 214	Statistical Inference	11	S2	P: (1) STAT 111 or STAT 112; (2) MATH 108 R: STAT 221
STAT 216	Probability	11	S1	P: STAT 111 or STAT 112 or MATH 108 R: STAT 231, MATH 223
STAT 218	Computational Methods in Statistics	11	S2	P: STAT 111 or STAT 112 or MATH 108 or MATH 115 or MATH 171
STAT 222	Applied Statistics	11	S1	P: STAT 111 or STAT 112 or STAT 131 R: FORE 222, FORE 210, STAT 220
STAT 224	Regression Modelling	11	S2	P: STAT 111 or STAT 112 or STAT 131 R: FORE 224, FORE 210, STAT 220
STAT 305	Statistics Project	14	SU2	P: 33 points from STAT210–299, and approval of HOD. R: MATH 305
STAT 312	Sampling Methods	14	S1	P: 11 points from STAT 212, 214, 222, 224 and a further 11 pts from STAT 210–299.
STAT 313	Computational Statistics	14	S2	P: (1) 11pts from STAT 212, 214, 222, 224 and a further 11 pts from STAT 210–299; (2) MATH 108 RP: STAT 218, and either MATH 109 or MATH 199
STAT 314	Statistical Inference	14	S1	P: (1) 11 points from STAT 212, 214 and a further 11 pts from STAT 210–299; (2) MATH 109 or MATH 199 RP: STAT 212 and STAT 214
STAT 315	Multivariate Statistical Methods	14	S2	P: 11 points from STAT 212, 214, 222, 224 and a further 11 pts from STAT 210–299. RP: MATH252 or MATH254
STAT 316	Applied Stochastic Modelling	14	S2	P: (1) 11 points from STAT 212, 214, 216 and a further 11 pts from STAT 210–299; (2) MATH 109 or MATH 199. R: MATH 376 RP: STAT 212, STAT 216 and 11 points from MATH 252, 254, 261, 262, 264, EMTH 202, 203, 204 EQ: MATH 376
STAT 317	Time Series Methods	14	S1	P: (1) 11 points from STAT 212, 214, 222, 224 and a further 11 pts from STAT 210–299, ECON 211 and MSCI 210; (2) MATH 109 or MATH 199. RP: 11 pts from MATH 251, 252, 254 and 11 pts from MATH 271, 282, STAT 216

STAT 391	Special Topic: Bayesian Statistics	14	S2	P: (1) 11 points from STAT 212, 214 and a further 11 pts from STAT 210–299; (2) MATH 109 or MATH 199 RP: STAT 218
STAT 392	Special Topic	14	S2	

The Degree of Bachelor of Speech and Language Therapy (BSLT)

See also the General Course and Examination Regulations.

1. Approval of Candidacy

Every candidate for the Degree of Bachelor of Speech and Language Therapy shall have been approved as a candidate by the Dean of Science.

2. Structure of the Degree

To qualify for the Degree, a candidate must follow a course of study as laid down in the Schedule to these Regulations consisting of not fewer than 4 EFTS (four years of full-time study) and be credited with:

(a) successful completion of courses in the Intermediate Examination;

(b) passes in the Examinations prescribed for the first, second and third professional years, and

(c) satisfactory performance in such other practical work as may be prescribed in order to complete a minimum of 300 hours of supervised clinical practice.

Note: Entry into the First Professional Examination is limited. Candidates must submit an enrolment application and a separate application form to the Head of the Department of Communication Disorders.

3. Admission to the Degree

i. All students planning to complete a Bachelor of Speech and Language Therapy (BSLT) must apply for admission to the degree programme prior to their first professional year.

ii. Admission to the degree is normally limited to 35 candidates. Up to four additional places may be designated for international students. Note: See Limitation of Entry Regulations.

iii. Admission to CMDS 281 and CMDS 282, the practicum courses in the First Professional Year, will be granted only to students who have been formally admitted to the degree programme. Admission to other professional courses may be approved for students enrolled in other degrees at the discretion of the Head of Department.

iv. To be eligible for admission students must have completed Intermediate Year courses of at least 120 points. Selection is based on academic merit but in cases of equal merit preference will be given to people who have completed the recommended courses.

v. Applications for admission to the first professional year must be received at the Department of Communication Disorders on the prescribed form no later than 1 November in the year preceding desired entry. When the Intermediate Year is not completed at the University of Canterbury, it is the responsibility of the student to ensure that an up-to-date official academic record is sent to the Department of Communication Disorders as soon as it is available. Students must also pre-enrol.

vi. Admission to the degree is competitive and selection will be based upon grades in relevant course work (generally a B+ or better grade average), a statement of interest, and for those meeting the basic admission criteria (as indicated by the application material and academic transcripts) an interview with Departmental representatives. Relevant work or volunteer experience with individuals who have communication disorders may also be considered when entry decisions are made.

vii. The selection into the degree programme is by the Admissions Committee of the Department of Communication Disorders who have been delegated authority by the Academic Board. The Admissions Committee normally meets during the second week of December following the publication of grades.

viii. Exemption from the Intermediate Year may be granted to individuals with qualifications and, where appropriate, relevant work experience, approved by the Head of Department. Students admitted under this clause may be required to take additional qualifying courses.

4. Maintaining a Place in the Programme

Students admitted to the degree must pre-register for the practicum courses CMDS 343, CMDS 381, CMDS 382, CMDS 482 and CMDS 484 by 15 October of the year preceding the course. Students pre-register by completing the application form available through the Department of Communication Disorders. Students who do not pre-register may not be admitted except under exceptional circumstances and by the approval of the Dean of Science.

5. Each Professional Examination to be Passed as a Whole

A candidate shall be required to pass each Examination for the first, second and third professional years as a whole. In recommending a candidate for a pass in any of these Examinations, the Dean of Science shall take into consideration the candidate's performance in all of the subjects of the Examination.

In exceptional circumstances, a candidate who has failed to pass an Examination as a whole may be credited with some of the subjects of the Examination. The candidate may then present, in a subsequent year, the remaining subjects of that Examination together with such subjects of the succeeding Professional Year as the Academic Board may permit.

6. Approval of Course of Study

The personal course of study of every candidate shall be as approved by the Dean of Science. In special cases the Academic Board may approve a course of study which does not conform to these or other relevant Regulations. Any application under this Regulation must be submitted in writing to the Head of the Department of Communication Disorders.

7. BSLT with Honours

The Degree of Bachelor of Speech and Language Therapy may be awarded with or without Honours. A candidate who has fulfilled the requirements herein prescribed for the degree and whose work has been of a sufficiently high standard may be recommended by the Dean of Science for admission to the degree with First or Second Class Honours. The candidates obtaining Second Class Honours shall be listed in two divisions (Division 1 and Division 2).

Schedule to the Regulations for the Degree of Bachelor of Speech and Language Therapy

Note: Prescriptions for these courses are given elsewhere in the Calendar.

Intermediate Examination

Candidates for admission to the First Professional Year of the Bachelor of Speech and Language Therapy must have passed courses totalling at least 120 points at this university or the equivalent at another university. A candidate's course of study for the Intermediate Year will consist of a total of 126 points made up of, or equivalent to, seven 18 point courses. It is recommended that they include courses selected from the following list; however, students should check with the Department to discuss the options prior to enrolment.

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
CMDS 111	Introduction to Developmental Communication Disorders	18	S1	
CMDS 112	Introduction to Acquired Communication Disorders	18	S2	
BIOL 116	Human Biology	18	S2	
EDUC 121	Child Development, Health and Behaviour	18	S2	R: EDUC 105, EDUC 110, EDUC 111
HLTH 101	Introduction to Health Studies	18	S2	
LING 101	The English Language	18	S1	R: ENGL 123, ENGL 112, LING 111
MAOR 107	Te Ahi Ka: Introducing Traditional Maori Society	18	S1	
MAOR 108	Te Ahi Ka: Introducing Treaty Society	18	SU1	R: MAOR 113 (prior to 2006)
PSYC 105	Introductory Psychology - Brain, Behaviour and Cognition	18	S1	R: PSYC 103, PSYC 104

PSYC 106	Introductory Psychology - Social, Personality and Developmental	18	S2	R: PSYC 103, PSYC 104
SCIM 101	Science, Maori and Indigenous Knowledge	18	S2	

Note: Students who have completed the Intermediate Year without taking CMDS 111 and CMDS 112 and have been accepted into the first professional year will be required to undertake a related course of self-directed study during the summer prior to entry. Students who have not completed LING 101 or an equivalent course will also be required to undertake a related course of self-directed study over the summer prior to entry. It is the responsibility of the student to purchase reading materials as recommended by the Department of Communication Disorders. Students from other universities should contact the College of Science Student Advisor for information on equivalent and acceptable courses.

First Professional Year

All courses are compulsory

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
CMDS 221	Linguistics and Language Acquisition	10	S1	
CMDS 222	Language Disorders in Children	10	S2	
CMDS 231	Acoustics and Phonetics	18	S1	
CMDS 232	Articulation and Phonology	10	S2	
CMDS 242	Introduction to Audiology	18	S1	
CMDS 261	Anatomy and Physiology of Speech and Hearing Mechanism	18	S1	
CMDS 262	Neurosciences	18	S2	
CMDS 281	Observation and Clinical Practice 1	10	S1	
CMDS 282	Clinical Practice 2	10	S2	

Second Professional Year

All courses are compulsory

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
CMDS 320	Spoken and Written Language Disorders in Education	12	S1	P: CMDS 222 and CMDS 232
CMDS 322	Advanced Language Analysis	12	S2	
CMDS 343	Health Disciplines	12	S2	P: CMDS 261, CMDS 262, CMDS 281, CMDS 282
CMDS 351	Fluency Disorders	12	S2	
CMDS 363	Motor Speech Disorders	12	S2	
CMDS 365	Dysphagia and Related Disorders - Diagnosis	12	S1	
CMDS 367	Voice Science and Disorders	12	S2	
CMDS 369	Aphasia and Related Disorders	12	S1	
CMDS 381	Clinical Practice 3	12	SU2 S1	
CMDS 382	Clinical Practice 4	12	SU2 S2	P: CMDS 281 and CMDS 282

Third Professional Year

All courses are compulsory

Course Code	Course Title	Pts	07	P/C/R/RP/EQ
CMDS 410	Cultural and Ethical Issues	17	S1	
CMDS 442	Aural Rehabilitation	17	S2	

CMDS 461	Advanced Topics in Speech and Language Disorders	17	S1	
CMDS 462	Special Topic	18	S2	
CMDS 465	Dysphagia and Related Disorders: Management	17	S1	P: CMDS 365
CMDS 482	Clinical Practice 5	17	SU2 S1	P: CMDS 381 and CMDS 382
CMDS 484	Clinical Practice 6	17	SU2 S2	P: CMDS 381 and CMDS 382
CMDS 490	Research Project	17	W	P: Subject to approval of the Head of Department.

Award: Certificate in Science (CertSc)

See also General Course and Examination Regulations.

The Programme for this Award

1. The Structure of the Programme

(a) Subjects: The Certificate in Science may be awarded for courses passed in the following subjects:

Astronomy
Biochemistry
Biological Sciences
Chemistry
Computer Science
Economics
Electronics
Geography
Geology
Linguistics
Management Science
Mathematics
Philosophy
Physics
Psychology
Statistics

Note: The courses for the subjects and their prerequisites are given in the Schedule of Courses for the Degree of Bachelor of Science.

(b) Structure: To qualify for the Certificate in Science a candidate must pass courses totalling at least 72 points at the 100- and/or 200-level, in courses listed in the Schedule to the Bachelor of Science.

2. Full-time and Part-time Study and the Normal Time Limits

The Certificate may be studied full-time or part-time. Other than in exceptional circumstances approved by the Dean of Science, the maximum elapsed time from first enrolment will be three years.

Admission to the Programme

The Certificate in Science is an introductory qualification in Science for candidates wishing to: test their scholastic ability at university prior to proceeding to a Bachelor's degree programme; broaden or up-to-date their knowledge for employment reasons, or: engage in lifelong learning.

3. Standard of Entry and Approvals Required for Admission to the Programme

(a) Candidates must satisfy the admission requirements of the University.

(b) The programme of study must be approved by the Dean of Science.

4. Transfer of Earlier Credit

(a) With the approval of the Dean of Science, courses passed within the previous five years and listed in the Schedule to the Bachelor of Science, or courses deemed to be equivalent which have not already been credited to another qualification, may be credited to the Certificate, provided that they satisfy the other regulations of the Certificate. Up to 18 points from courses from another New Zealand university may be credited under this Regulation.

(b) A student who has abandoned a Bachelor of Science degree and has passed 72 points with a C average or better and wishes to graduate with a Certificate in Science, must have permission of the Dean of Science to do so.

Transfer to Bachelor of Science

5. With the approval of the Dean of Science:

(a) A candidate who has been awarded a Certificate within the previous five years may apply to credit Certificate courses towards an undergraduate science degree of the University, provided any

such courses comply with the Regulations for the degree.

(b) A candidate who has not been awarded the Certificate may apply to transfer courses passed while enrolled for the Certificate to a Bachelor of Science degree.

Graduate Certificate in Antarctic Studies (GradCertAntaStud)

See also General Course and Examination Regulations.

1. Admission Requirements

Every candidate for the Graduate Certificate in Antarctic Studies shall have:

(a) i. qualified for the award of any appropriate degree in New Zealand; or
ii. be admitted ad eundem statum with graduate status in the University of Canterbury; and

(b) been approved as a candidate for the Graduate Certificate by the Dean of Postgraduate Studies; and

(c) satisfied the medical examination as prescribed by Antarctica New Zealand.

Note: Admission to the Graduate Certificate is subject to Admission Regulations E Limitation of Entry Regulations.

Application for admission to the Graduate Certificate programme must be made by 1 August in the year of enrolment in the course.

2. Course of Study

A candidate shall satisfactorily complete the prescribed course of study in one year, comprising ANTA 501 Antarctica: Contemporary Issues and Perspectives Part 1; ANTA 502 Antarctica: Contemporary Issues and Perspectives Part 2; ANTA 503 Antarctic Field Work; ANTA 504 Supervised Project in Antarctic Studies. Participation in the Scott Base component of ANTA 503 is subject to a medical examination as prescribed by Antarctica New Zealand.

3. Award of Certificate with Distinction

The Graduate Certificate in Antarctic Studies may be awarded with distinction.

Graduate Diploma in Science (GradDipSc)

See also the General Course and Examination Regulations.

1. Subjects in Which the Diploma May be Awarded

The subjects for the Graduate Diploma in Science are: Astronomy, Biochemistry, Biological Sciences, Chemistry, Computer Science, Economics, Electronics, Geography, Geology, Linguistics, Management Science, Mathematics, Philosophy, Physics, Psychology, and Statistics.

2. Qualifications Required to Enrol in the Diploma

(a) Every candidate for the Diploma in Science shall, before enrolling for the diploma, fulfil one of the following conditions:
i. either qualify for a Bachelors degree;
ii. or be admitted ad eundem statum as entitled to enrol for the Diploma in Science.

(b) Every candidate for the diploma shall have been approved as a candidate by the Dean of Science.

3. Structure of the Diploma

To qualify for the diploma a candidate shall pass prescribed courses which shall have been selected from the Schedule to the Bachelor of Science degree or from courses which the Academic Board has accepted as equivalent thereto. These courses must have a total value of not fewer than 146 points including not fewer than 84 points at 300-level.

4. Award of Diploma with Distinction

The Diploma in Science may be awarded with distinction.

5. Exemption of Prerequisites

Normal prerequisites for any course may be exempted at the discretion of the Head of Department/School where the course is offered.

6. Part-time Enrolment

The diploma may be studied part-time.

7. Repeating of Courses

A candidate who has failed one or more courses is allowed to repeat those courses for credit.

The Degree of Bachelor of Science With Honours (BSc(Hons))

See also General Course and Examination Regulations.

1. BSc(Hons) Programme of Study

The BSc(Hons) at Canterbury, if studied full-time, is an accelerated one-year (12 months) degree course for the very able. It is taken following the completion of a three-year Bachelor's degree with very good grades. Those who complete the BSc(Hons) with high grades are normally eligible to proceed directly to a PhD.

Students who have been granted direct entry to 200-level undergraduate courses on the basis of high achievement in university entrance assessments may complete a BSc(Hons) after a total of three years study: two years undergraduate (Pre-BSc(Hons)) and the one-year (12 months) Honours. Also see Regulation 3(1) (c) below.

2. Subjects in which the Degree may be Awarded

The degree of BSc(Hons) may be awarded in the following subjects: Astronomy, Biochemistry, Biotechnology, Cellular and Molecular Biology, Chemistry, Computational and Applied Mathematics, Computer Science, Ecology, Economics, Engineering Geology, Environmental Science, Geography, Geology, Hazard and Disaster Management, Management Science, Mathematics, Mathematics and Philosophy, Mathematical Physics, Medical Physics, Microbiology, Physics, Plant Biology, Psychology, Statistics, Zoology. (*Please refer to Regulation 9 for Combined Honours.)*

3. Qualifications Required to Enrol in the Degree

Every candidate for the Degree of Bachelor of Science with Honours shall have either:

1. Either
   (a) qualified for the award of a Bachelor's degree; or
   (b) been admitted under the regulations for admission ad eundem statum as entitled to enrol for the Degree of Bachelor of Science with Honours; or
   (c) gained direct entry into 200-level courses and have completed a minimum of 240 points, including 84 points at 300-level;
   Note: Students who enter 200-level honours (Pre-BSc(Hons)) under this regulation transfer from an incomplete BSc and graduate BSc(Hons) only.
2. Either
   (a) satisfied the prerequisites for the subject to be undertaken in the BSc(Hons) as specified in the Schedule to these Regulations; or
   (b) completed a qualifying course prescribed by the Head of Department/School and approved by the Dean of Science of a standard equivalent to the pre-requisite courses;
3. demonstrated a high standard of achievement in previous course work, normally entailing having achieved at least a B+ average in the required courses for their undergraduate degree subject major.
4. been approved as a candidate for the degree in that subject by the Head of Department/School and the Dean of Science.

4. Course of Study Requirements

A candidate shall be assessed on the basis of such written examination, oral examinations, research project, and other work as prescribed for the subject offered. Candidates shall not concurrently enrol in additional undergraduate courses except with the permission of the Head of Department/School and Dean of Science. The programme of study shall satisfy the following conditions.

(a) Approval of programme of study
   i. Every programme of study for the degree shall contain the 400-level requirements specified by the Department in the Schedule to the Regulations for the Bachelor of Science with Honours. The programme of study must have a minimum of 144 points (1.2 EFTS), which includes a research project of at least 30 points. With the approval of the Head of Department/School, a candidate may replace courses up to 60 points with 400-level honours courses prescribed for other subjects.
   ii. In special cases a personal programme of study may be approved which does not conform to the course of study requirements. Applications for a special course of study shall be submitted in writing to the appropriate Head of Department/School and forwarded to the Dean of Science for approval. The application will be considered on its merits and in the light of special circumstances.

(b) Courses not to be repeated or failed: All courses must normally be passed at the first attempt. Where a candidate's performance or ability to study in one or more Honours courses has been impaired by illness or other circumstances, and an aegrotat consideration is not available, the Dean of Science may permit the candidate to repeat course work and/or undergo assessment one further time.

(c) Subjects passed elsewhere at 400-level: A candidate shall not present a subject for a BSc(Hons) degree which he or she has already passed at an equivalent level for another degree or diploma.

5. Full-time and Part-time Study and the Normal Time Limits

(a) When a candidate is enrolled full-time, the 400-level Honours courses must be completed within 12 months, except as permitted under Regulation 4(b).

(b) i. With the approval of the Head of Department/School and the Dean of Science, a candidate may be enrolled in Honours courses part-time.
   ii. A part-time candidate is one who, because of employment, health, family, or other reasons, is unable to study full-time. Part-time enrolment requires completion within 2 years (24 months), except as permitted under Regulation 4(b).

6. Class of Honours

The Degree of Bachelor of Science with Honours may be awarded with First Class Honours, with Second Class Honours, or with Third Class Honours; the list of candidates obtaining Second Class Honours shall be listed in two divisions (Division I and Division II). The class of honours awarded shall be determined on the performance of the candidate. *(Please refer to the General Course and Examination Regulations C: Work and Assessment, for further information.)*

7. Candidates Who Fail to Obtain Honours

When a candidate fails to obtain BSc(Hons), the Dean of Science, depending upon the level of achievement and on the advice of the Head of Department/School, may recommend the award of:

i. a Postgraduate Diploma in Science,
ii. a Masters of Science Part I,
iii. in the case of students who gained entry to BSc(Hons) under direct entry Regulation 3(1) (c), a BSc, or
iv. course credit, Certificate of Proficiency (COP).

8. Withdrawal from the BSc(Hons) programme

A candidate who has commenced study for the degree and withdraws from all or part of the programme without completing course assessment requirements may not re-enrol without the permission of the Dean of Science.

9. Combined Honours Degree

A candidate may complete the degree of Bachelor of Science with Honours in two subjects (Combined Honours). Except in the case of the specific Combined Honours degrees whose requirements are stated in Schedule 2 of the BSc(Hons) regulations, a student wishing to complete a Combined BSc(Hons) degree must satisfy the course requirements for entry to 400-level honours in each subject, take 400-level courses totalling at least 60 points in each subject, complete one research project (worth at least 30 points) that normally reflects the combined nature of the degree, and take such additional courses as required by the Dean of Science.

10. Subjects and their Prerequisites for the Degree

The subjects for the degree and their prerequisites are given in the Schedule to these Regulations.

Schedule 1 to the Regulations for the Degree of Bachelor of Science with Honours

Astronomy

ASTR 424, ASTR 480 and five other courses. At least one must be chosen from ASTR 421-423, 425-426, the others from PHYS 400-level lecture courses, but no more than two courses from PHYS 441-460. Not all courses may be offered in any one year. With the approval of the Head of Department, one or two courses may be replaced by appropriate courses from another subject.

P:

(1) 84 points of 300-level ASTR or PHYS courses; and

(2) 28 points of 300-level MATH courses.

Note: The choice of courses is subject to the approval of the Head of Department.

Biochemistry

Four courses and a project (BCHM 480) as approved by the Course Co-ordinator. Normally at least 3 courses selected from BCHM 401 (BIOL 436), BCHM 402 (CHEM 465), BCHM 403 (BIOL 435), BCHM 405 (BIOL 434), BCHM 406 (BIOL 430); the balance is to be selected from BCHM 407-409, BIOL 431-432, BIOL 437, BIOL 450-451, BIOL 491, CHEM 462, CHEM 467.

P: (1) BCHM 201; and
(2) BCHM 202 or BIOL 230 (PAMS/ZOOL 203); and
(3) BCHM 205 or CHEM 204 or 222 or 254 or 262; and
(4) BCHM 301 (BIOL 331 or PAMS 308); and
(5) BCHM 302 (CHEM 325); and
(6) BCHM 381; and
(7) 14 additional points normally from CHEM 322, 324, 362 or 381 or BIOL 313 (PAMS 303), BIOL 352 (PAMS 310), BIOL 330 (PAMS/ZOOL 309), BIOL 350 (ZOOL 301) or BIOL 351 (ZOOL 306).

Biotechnology

Four courses and a research project (BIOT 480). The four courses are BIOL 491, plus three others selected from BIOL 401-402, BIOL 404-409, BIOL 430-431, BIOL 434-435, BIOL 453, BIOL 492-493. With the approval of the Head of the School of Biological Sciences, one course may be chosen from other 400-level BIOL or BCHM courses.

Note: Not all courses will be offered in any one year.

P: (1) BIOL 252; and
(2) BIOL 352; and
(3) one course selected from BIOL 313, BIOL 330, BIOL 331.

Note: Students will normally be expected to take BIOL 309 (BIOL 301).

Cellular and Molecular Biology

Four courses and a project (CEMB 473). A minimum of three courses are to be selected from BIOL 430-432, BIOL 434, BIOL 437, or BIOL 491. An additional course may be chosen with the approval of the Course Co-ordinator, School of Biological Sciences, from CHEM 461-471; and/or BIOL 435 (BCHM 403), 453, 474, 477, 478, 481 or 493; and/or BIOL 433 (BCHM 404), BIOL 450-452, BIOL 470-473, BIOL 474-475 or BIOL 490. Note: In all Cellular and Molecular Biology courses (CEMB), a satisfactory performance is required in both the year's work and the written papers.

P: (1) BIOL 230; and
(2) BCHM 201; and
(3) 22 additional points from BIOL 200-level; and
(4) three courses from BCHM 301, BIOL 313, BIOL 352, BIOL 351, BIOL 330.

Note: Students will normally be expected to take BIOL 309 (BIOL 301).

Chemistry

CHEM 480 and four courses chosen from CHEM 461-474, including at least two from CHEM 461-463. Note: With the approval of the Head of Department, one of the courses CHEM 461-474 may be replaced by an Honours 400-level course from another subject.

P: (1) At least 66 points from CHEM 221-223, 233, 243 and 261-273; and
(2) CHEM 281 and 282; and
(3) at least 36 points from courses in Mathematics, Statistics or ENGR 102; and
(4) CHEM 361, 362, 363, 381 and 382.

Note: With the approval of the Head of Department, one of CHEM 361-363 may be replaced by CHEM 324 or CHEM 325.

Computational and Applied Mathematics

CAMS 449 Research Project, and eight other approved courses chosen from MATH 401-490 (other than MATH 449), MSCI 451-462 or STAT 401-490 (other than STAT 449). With the approval of the Programme Co-ordinator, candidates may substitute one or two courses from other subjects in an applications area.

P: (1) 44 points from MATH 251, 252, 254, 261, 262, 264 (Note: It is recommended that candidates also include one of MATH 171, 271, or 282); and
(2) MATH 381; and
(3) 70 points from MATH 323, 346, 352, 353, 361, 362, 363, 371; and
(4) 44 points from other approved courses at 200-level or above (normally from CHEM, COSC, MATH, MSCI, PHYS, STAT or ENGINEERING courses).

Computer Science

COSC 460 and eight half-courses to be selected (with the approval of the Head of Department) from COSC 401-439.

Note: Not all half-courses may be available in one year.

P: (1) 66 points from 200-level COSC; and
(2) a total of 36 points from courses in Mathematics and Statistics; and
(3) 84 points from 300-level COSC.

Ecology

Four courses and a research project (ECOL 480), the courses to be chosen, with the approval of the Head of the School of Biological Sciences, from FORE 616, BIOL 421-422, BIOL 453, BIOL 470-479, BIOL 481, BIOL 490.

P: (1) 56 points from BIOL 370, BIOL 372, BIOL 374, BIOL 375, BIOL 376; and
(2) BIOL 309 or BIOL 301 or equivalent.

Economics

ECON 480 and eight courses or their equivalent from ECON 401-479. Enrolment in any combination of courses is subject to the approval of the Head of Department. Some second semester courses may have a first semester course as a prerequisite. ECON 480 is a whole year course. Candidates can normally attempt each course on offer only once. All full-time candidates shall normally take four courses and ECON 480, in each semester.

P: (1) ECON 201, and 204 or 230 or 231; and
(2) ECON 211 or 213, or STAT 212 and 214; and
(3) MATH 104 or 105; or (106 or 108) and (107 or 109); and either
(4) ECON 351, 353 and 355 (before the year 2001), or
(5) ECON 321, 322, 323, 324, and 325.

Engineering Geology

A total of seven courses plus the Research Project (ENGE 490). Courses must include ENGE 471, ENGE 472, ENGE 485, ENGE 486, at least one course chosen from GEOL 473-489, and at least one course chosen from ENGE 476-482, with the approval of the Head of the Department of Geological Sciences.

Notes:

1. *Practical and fieldwork may be required as part of any ENGE 471-486 courses.*
2. *With the approval of the Head of the Department of Geological Sciences, one of the courses ENGE 471-486 may be replaced by one other ENGE course.*
3. *With the approval of the Head of the Department of Geological Sciences, up to two courses from GEOL 473-489 may replace up to two of the optional courses, or one full year course from another subject may replace two of the optional courses.*
4. *Not all courses may be offered in any one year.*

P: (1) 18 points of MATH 100-level courses; and
(2) GEOL 230 and GEOL 231 (or equivalent fieldwork); and
(3) at least 44 points from GEOL 221-226, 232-238; and
(4) normally at least 36 points from ASTR, BIOL, CHEM, COSC, GEOG, PHYS, or STAT courses; and
(5) GEOL 351 and GEOL 352 (or equivalent fieldwork); and
(6) 56 points from GEOL 300-level courses.

Note: An additional 28 points at GEOL 300-level is strongly advisable.

Environmental Science

ENVR 410, ENVR 411, a project ENVR 480, and courses totalling not less than 0.75 course weighting selected from relevant courses offered by the Environmental Science home departments/schools of Forestry (FORE), Geography (GEOG), Geological Sciences (GEOL and ENGE), and Biological Sciences (BIOL), and from relevant courses, as approved by the Co-ordinator, that are offered by Antarctic Studies (ANTA), Biochemistry (BCHM), Chemistry (CHEM), Chemical and Process Engineering (ENCH), Civil Engineering (ENCI), and Mathematics and Statistics (MATH and STAT). The selection should form a coherent thematic programme, and must be discussed with the Co-ordinator. Note that normally all individual course prerequisites must be satisfied.

P: Students who have fulfilled the requirements for Honours 200 and 300-level in appropriate courses in Forestry, Geography, Geological Sciences, Biological Science, or other science and engineering courses, including a total of 84 points at 300-level, and as approved by the Co-ordinator, may enrol for Environmental Science Honours 400-level.

Geography

A Research Project (GEOG 420) and four semester courses chosen from GEOG 401-419, with the approval of the Head of Department. Not all courses will necessarily be offered in any one year.

P: Students will normally be expected to:
(1) either have passed 84 points in 300-level courses approved by the Head of Department, including GEOG 309 and at least 28 other points in 300-level Geography courses; or
(2) to have completed 112 points at 300-level of which 56 are in Geography and 56 are in subjects approved by the Head of Department.

Geology

Seven courses chosen from GEOL 471-489 and a research project (GEOL 490), with the approval of the Head of the Department of Geological Sciences.

Notes:

1. *With the approval of the Head of the Department of Geological Sciences, up to three courses from ENGE 476-482 (Engineering Geology) may replace up to three of the optional courses, or one full year course from another subject may replace two of the optional courses.*
2. *Practical and fieldwork may be required as part of any GEOL 471-489 courses.*
3. *Not all courses may be offered in any one year.*

P: (1) GEOL 230 and GEOL 231 (or equivalent fieldwork); and
(2) at least 44 points from GEOL 221-226, 232-238; and
(3) normally at least 54 points from ASTR, BIOL, CHEM, COSC, GEOG, MATH, PHYS, or STAT courses; and
(4) GEOL 351 and GEOL 352 (or equivalent fieldwork); and
(5) 56 points from other GEOL 300-level courses.

Note: An additional 28 points at GEOL 300-level is strongly advisable.

Hazard and Disaster Management

HAZM 401, HAZM 403, ENCI 601, ENCI 462 (or equivalent), a research project (HAZM 490) and two courses chosen to complete a coherent programme in the area of hazard and disaster management with the approval of the Programme Director, Department of Geological Sciences.

P: (1) 18 points of 100-level STAT or equivalent; and
(2) normally at least 84 points at 300-level from the Schedule to the BSc Regulations as approved by the Programme Director.

Management Science

MSCI 480 and five courses chosen from MSCI 451–469 as approved by the Head of Department of Management.

P: (1) MSCI 315 and 316; and
(2) MSCI 310 and 311; and
(3) two of MSCI 312, 321, 322 and 323*.
**Note: This prerequisite may be replaced by equivalent 300-level MATH or STAT courses approved by the Head of Department.*

Students are strongly advised to take:
(1) COSC 121, and
(2) ECON 104 or ECON 105, and
(3) MATH 104 or 105 or 107 or 109, and
(4) MSCI 102 and 112, and
(5) STAT 111 or 131, and
(6) MSCI 210 and 215 and 216 and 218, and
(7) MATH 252 or 254.

Mathematics

MATH 449 and eight courses chosen from MATH 401-490 and STAT 401-490 (other than MATH 449 or STAT 449). One of the eight courses must be MATH 443 if the student has not been credited with MATH 343 previously. Normally at least six courses will be chosen from the MATH course list.

P: (1) 44 points from MATH 210-299; and
(2) 56 points from MATH 310-399; and
(3) an additional 28 points from MATH 310-399 or STAT 310-399 or other approved courses.

Mathematics and Philosophy

MPHI 450 and seven courses chosen from MATH 401–490 (other than MATH 449) and PHIL 431–470. One of the seven courses must be MATH 443 if the student has not been credited with MATH 343 previously. Normally two courses will be chosen from the PHIL course list and five courses from the MATH course list.

P: (1) 44 points from MATH 210–299; and
(2) 84 points from MATH 310–399; and
(3) 44 points from PHIL 208, 209, 223, 233, MATH

208, 209; and
(4) 28 points from PHIL 301–399, MATH 308, 309.

Mathematical Physics

MAPH 480 (Research Project) and six courses from PHYS 401-450 and MATH 401-490 (other than MATH 449).

Normally, at least three courses must be chosen from the PHYS course list and at least two from the MATH course list. The choice of courses is subject to the approval of the Course Co-ordinator.

P: (1) PHYS 221-224, 281, 282; and
(2) 44 points from MATH 251-269; and
(3) 112 points PHYS 300-level and MATH 300-level courses chosen with the approval of the Course Co-ordinator

Note: Students will normally be expected to take: PHYS 310; at least 42 points from PHYS 311, 312, 314, 316, 318, 322, 326; 56 points from MATH 342, 343, 352, 353, 361, 362, 363, 371.

Medical Physics

MDPH 480 and six courses from MDPH 401–410. With the approval of the Head of the Department of Physics and Astronomy, one or two of the courses may be replaced by appropriate courses from another subject (for example, Physics).

P: 84 points at 300-level, approved by the Head of Department.

Microbiology

Four courses and a project (MBIO 480).

A minimum of three courses from BIOL 434–493; the fourth course may be chosen, with the approval of the Head of the School of Biological Sciences, from BIOL 401–409, 421, 453, 474, 477, 478. A written report on a research project (MBIO 480) must be completed and presented by the due date in the year in which the student presents the courses selected. The Head of the School of Biological Sciences will normally require a candidate to achieve a satisfactory standard in BIOL 309 (BIOL 301), in addition to the four courses selected, if the student has not already passed the course at an earlier stage.

P: (1) BIOL 111 (BIOL 101 for students enrolled prior to 2001), 112 and either BIOL 113 or 18 points from CHEM; and
(2) BCHM 202 or BIOL 230; and
(3) BIOL 213; and either
(4) BCHM 202 or BIOL 230, or at least one course selected from BIOL 252, BIOL 230, BIOL 270, BIOL 271, BCHM 201 for students credited with PAMS 206 before 2001; and
(5) BIOL 313; and
(6) one course selected from BIOL 331 or BCHM 301, BIOL 330, BIOL 352.

Physics

PHYS 480 and six courses chosen from PHYS 401-460, including at least four courses from PHYS 401-440. Not all courses may be available in any one year. With the approval of the Head of Department, one or two of the courses may be replaced by appropriate courses from another subject.

P: (1) 84 points of 300-level PHYS or ASTR courses; and
(2) 28 points of 300-level MATH courses.

Note: The choice of courses is subject to the approval of the Head of Department.

Plant Biology

Four courses and a research project (PBIO 480). Courses are to be selected, with the approval of the Head of the School of Biology Sciences, from: BIOL 401-409, BIOL 421, BIOL 430-432, BIOL 434-436, BIOL 453, BIOL 471-474, BIOL 476, BIOL 478, BIOL 490-493. *Note: Not all courses may be offered in any one year.*

P: 84 points in 300-level BIOL courses.

Note: Students will normally be expected to take BIOL 309 (BIOL 301).

Psychology

Four whole of year (or their semester course equivalent) totalling at least 1.00 EFTS from PSYC 401-469 and PSYC 470 (a project). Candidates enrolled in PSYC 470 must present a report on the project by 31 October of the year in which the candidate enrols for the project.

P: Six courses (not fewer than 150 points) from PSYC 200- and PSYC 300-level courses, including:
(1) PSYC 206 and
(2) one from PSYC 207-211, and
(3) PSYC 344, and
(4) one from PSYC 331-335, 343 and
(5) one further PSYC 300-level course and
(6) one further PSYC 200- or PSYC 300-level course.

Note: Students should consult the Psychology Department Postgraduate Handbook and the Psychology Graduate Studies Co-ordinator for full information on the courses offered in any one year.

Statistics

STAT 449 and eight courses chosen from STAT 401-490 and MATH 401-490 (other than STAT 449 or MATH 449). One of the eight courses must be STAT 464 if the student has not been credited with STAT

214 previously. Normally at least six courses will be chosen from the STAT course list.

P: (1) MATH 109 or MATH 199; and
(2) 33 points from STAT 210-299; and
(3) 56 points from STAT 310-399; and
(4) an additional 28 points from MATH 310-399 or STAT 310-399 or other approved courses.

Zoology

Four courses and a research project (ZOOL 471), the courses to be selected, with the approval of the Head of the School of Biological Sciences, from BIOL 401-409, 422, 430-432, BIOL 433 (BCHM 404), BIOL 450-452, BIOL 470-476, BIOL 490. With the approval of the Head of the School of Biological Sciences, one of the courses BIOL 401-409 may be an Honours 400-level course from another subject or an approved 28 point BSc course at 300-level.

P: (1) 84 points in 300-level BIOL courses; and
(2) additional work as approved by the Head of the School of Biological Sciences, typically BIOL 309 (BIOL 301).

Schedule 2 to the Regulations for the Degree of Bachelor of Science with Honours

Economics and Mathematics

Either:

(1) ECON 480 plus eight additional half-courses in 400-level ECON or MATH, including at least three half-courses in ECON and at least four half-courses in MATH; or

(2) MATH 449 plus eight additional half-courses in 400-level ECON or MATH, including at least four half-courses in ECON and at least three half-courses in MATH.

P: (1) ECON 201 and 230; and
(2) STAT 212 and STAT 214; and
(3) 66 points from 200-level MATH, normally consisting of MATH 254, 264, 243; and
(4) 56 points from ECON 321, 322, 323, 324, 325, 326, 331, 332; and
(5) 56 points from 300-level MATH or STAT, normally consisting of MATH 343 and 42 points from MATH 352, 353, 361, 363, with up to 28 points of 300-level STAT.

Mathematics and Statistics

(1) MATH 449 or STAT 449

(2) Eight courses chosen from MATH 401-490 and STAT 401-490 (other than MATH 449 or STAT 449). One of the eight courses must be MATH 443 if the student has not been credited with MATH 343 previously, and one of the eight courses must be STAT 464 if the student has not been credited with STAT 214 previously. At least three courses will be chosen from the MATH course list and at least three courses will be chosen from the STAT course list.

P: (1) 44 points from MATH 210-299; and
(2) 33 points from STAT 210-299; and
(3) 98 points from MATH 310-399 and STAT 310-399, including at least 42 points from each of the MATH and STAT course lists.

The Degree of Master of Antarctic Studies (MAntaStud)

See also General Course and Examination Regulations.

1. Qualifications Required to Enrol in the Degree

Every candidate for the degree of Master of Antarctic Studies, before enrolling for the degree, shall have:

(a) i. qualified for the Postgraduate Diploma in Antarctic Studies, or an equivalent postgraduate qualification, normally with a B average; or
ii. qualified for a degree in a New Zealand university which is of relevance to Antarctic Studies and the proposed course of study; and
iii. presented evidence of ability for advanced level academic study; or
iv. been admitted ad eundem statum to enrol for the Master of Antarctic Studies.

(b) Every candidate for the degree shall have been approved as a candidate by the Dean of Science.

2. Award of the Degree With or Without an Endorsed Option; Award of the Degree with Honours

The degree of Master of Antarctic Studies maybe

awarded with Honours. There shall be two classes of Honours: First Class Honours and Second Class Honours. Second Class Honours shall be awarded in two divisions: Division I and Division II.

3. Structure of the Degree

The programme for the degree of Master of Antarctic Studies consists of Part I and Part II.

(a) A candidate admitted under (ii.) and (iii.), or (iv.) of Regulation 1(a) shall offer both Parts.

(b) A candidate admitted under (i.) of Regulation 1(a) for a Master of Antarctic Studies shall offer Part II only.

(c) All students admitted to the Master of Antarctic Studies will complete a coherent programme of study approved by the Chair of the Board of Studies: Antarctic Studies.

4. Full-time/Part-time Enrolment

A candidate may be enrolled for the degree of Master of Antarctic Studies either on a full-time or part-time basis. A part-time candidate is one who, because of employment, health, family or other reasons, is unable to devote his or her full-time to study. Part-time enrolment requires the approval of the Dean of Science.

5. Duration of the Course

A candidate offering both Part I and Part II shall normally follow a course of study for not less than two years of full-time study, and Part I will be completed in not less than one year and no more than two years of full-time study.

The time limits for the thesis or research project will be determined by the Dean of Science on the recommendation of the Chair of the Board of Studies: Antarctic Studies, but will normally be no less than one year and no more than two years of full-time study. A part-time candidate shall be required to follow a programme of study with time limits determined by the Dean of Science on the recommendation of the Chair of the Board of Studies: Antarctic Studies.

6. Requirements for Part I

(a) The requirements for Part I shall be ANTA 401 and ANTA 402 and appropriate 400-level courses approved by the Chair of the Board of Studies: Antarctic Studies and listed in the University of Canterbury or other University Calendars relevant to a coherent programme of study for each student. The total course weight of the Part I programme will be at least 1.0 EFTS.

(b) Candidates must satisfy the Board of Studies: Antarctic Studies, that they have the necessary prerequisite knowledge to undertake the proposed courses from the Schedule.

(c) Re-enrolment in Part I to repeat failed courses or offer any other course in its place will only be permitted in exceptional circumstances and requires a recommendation from the Chair of the Board of Studies: Antarctic Studies and the permission of the Dean of Science.

(d) A candidate who fails any courses offered for Part I and is not successful under Regulation 6(c), shall not be awarded a pass in Part I and shall not be permitted to proceed to Part II, but will be awarded a Certificate of Proficiency for each course passed.

(e) A candidate who passes all of the courses for Part I, but who does not attain a B grade average or better shall not be permitted to proceed to Part II (unless special permission has been granted by the Dean of Science), but may apply for the award of the Postgraduate Diploma in Antarctic Studies. The candidate may also apply to the Chair of the Board of Studies: Antarctic Studies to repeat relevant courses to obtain a B grade average.

(f) A candidate who passes all the courses for Part I and is eligible to proceed to Part II, but who chooses not to do so, may apply for the award of the Postgraduate Diploma in Antarctic Studies.

Note: Course work shall consist of approved courses at 400-level or higher from the University of Canterbury or another tertiary education institution in New Zealand, as approved by the Board of Studies: Antarctic Studies.

7. Requirements for Part II

Part II shall consist of the preparation of a thesis to the value of 1.0 EFTS embodying the results of an investigation in a subject area approved by the Board of Studies: Antarctic Studies. The requirements of the General Course and Examination Regulations, Part L, shall be met.

Schedule to the Regulations for the Degree of Master of Antarctic Studies

Part I

ANTA 401 Antarctic Global Connections, compulsory (0.3750 EFTS)

ANTA 402 Antarctic Legal System, compulsory (0.1250 EFTS)

Other 400-level courses relevant to a coherent programme of study. A total course weighting of at least 1.0 EFTS must be completed.

Note: Courses other than those on the above Schedule will be approved by the Board of Studies: Antarctic Studies, for inclusion in a candidate's course of study.

Part II

ANTA 690 Antarctic Studies Masters Thesis (1.000 EFTS)

The Degree of Master of Audiology (MAud)

See also General Course and Examination Regulations.

1. Qualifications Required to Enrol in the Degree

(a) Either:
   i. qualified for the award of the Degree of Bachelor of Speech and Language Therapy; or
   ii. qualified for the award of the Degree of Bachelor of Science, the Degree of Bachelor of Arts, the Degree of Bachelor of Education, the Degree of Bachelor of Engineering – Electrical, or the Degree of Bachelor of Engineering – Mechanical, with relevant undergraduate course work, as approved by the Head of the Department of Communication Disorders; or
   iii. been admitted ad eundem statum as entitled to enrol for the degree of Master of Audiology; and

(b) been approved as a candidate for the degree by the Dean of Science.

Note: Entry into Year 1 of the Master of Audiology is limited. Candidates must submit an enrolment application and a separate application form to the Head of the Department of Communication Disorders.

2. Full-time and Part-time Study

A candidate shall normally be enrolled as a full-time candidate. A full-time candidate is one who throughout the calendar year regards study and research for the Master of Audiology as a full-time occupation.

With the approval of the Dean of Science, a candidate may be enrolled as a part-time candidate. A part-time candidate is one who because of employment, health, family or other reasons is unable to devote his or her full-time to study.

Total course weighting for the MAud is 2.00 for students with a BSLT and 2.21 for those without a BSLT degree.

3. Structure of the Degree

A candidate for the Degree of Master of Audiology shall:

(a) enrol in and pursue either full-time for 2 years or part-time for no less than 3 years and no more than 4 years a programme of study approved by the Dean of Science;

(b) during the programme of study, pass the required courses as specified in the Schedule to these regulations if enrolled as a full-time student or, if enrolled as a part-time student, pass all courses listed in the Schedule in a programme of study over three years, as determined by the Dean of Science;

(c) during the programme of study, complete a thesis and satisfy the examiners therewith.

4. Repeating of courses

A candidate who fails any of the courses, or who otherwise does not attain a standard satisfactory to the Dean of Science shall not be permitted to repeat any of those courses, or offer any other course in their place.

5. Supervision of Theses

(a) A candidate shall, before commencing the research to be described in the thesis, secure the approval of the Head of the Department

concerned for the topic chosen and for the proposed research programme.

(b) Supervisors shall be appointed in accordance with the General Course and Examination Regulations, Part L.

(c) The candidate shall meet with and report to the senior supervisor as has been determined under the agreement signed on registration of the research proposal. The candidate shall normally work on the University campus, and laboratory work shall normally be carried out within the University institution. The Head of Department may give approval for work to be carried out at another institution in New Zealand for a period not exceeding one month, but permission of the Dean of Postgraduate Studies is required if the period exceeds one month, or if any of the work, including field work, is to be carried out overseas.

6. Examination of Theses

(a) When a thesis is examined, there shall be two examiners, as specified in the General Course and Examination Regulations, Part L.

(b) A candidate must indicate in the thesis any part which he or she has previously used for another degree.

(c) The examiners may require the candidate to undergo an oral examination on the subject of the thesis or on related subjects.

(d) If the thesis at its first presentation is unsatisfactory, the Dean of Science may, on the recommendation of the examiners, permit the candidate to revise the thesis and re-submit it by a specified date.

(e) If the examiners' final recommendation is that the thesis be awarded a failing grade, the degree of Master of Audiology shall not be awarded.

7. MAud with Distinction

In cases of exceptional merit candidates may, on the recommendation of the examiners, have the degree awarded with Distinction. In recommending a candidate for admission to the degree and in recommending Distinction the examiners will take into consideration the combined results of the thesis, clinical practice, and other courses taken.

Note: The award of Distinction normally requires a grade point average of 7.00 or greater.

Schedule to the Regulations for the Degree of Master of Audiology

Year 1

First Semester

CMDS 629 Clinical Audiology *CW .050*

CMDS 631 Biological Bases of Auditory Function *CW .1417*

CMDS 632 Acoustics and Psychoacoustics *CW .090*

CMDS 633 Amplification *CW .090*

CMDS 604 Research Design *CW .090*

CMDS 630 Clinical Observation and Practice 1 *CW .090*

Second Semester

Co-req Aural Rehabilitation (CMDS 442 in BSLT*) *CW .090*

CMDS 634 Paediatric Audiology *CW .090*

CMDS 635 Electrophysiological Techniques *CW .090*

CMDS 636 Advanced Audiological Assessment *CW .090*

CMDS 637 Cochlear Implants *CW .050*

CMDS 640 Clinical Practice 2 *CW .090*

Summer

CMDS 650 Externship *CW .090*

Year 1 Total CW BSLT Background 1.00

Year 1 Total CW non-BSLT Background 1.09

**Course offered as part of BSLT degree. Students enrolled in the MAud programme without having a BSLT background are required to take these courses.*

The Thesis

CMDS 690** *CW .750*

***A Year 1 grade average of B- is normally required for entry to the thesis. Thesis must be completed within 12 months (full-time) and may be started in either the summer at the end of Year 1, or the first semester of Year 2, finishing in either the second semester of Year 2 or the summer of Year 2, respectively. Note: Part-time enrolment in the thesis (0.65 EFTS) is available on approval.*

Year 2

First Semester

CMDS 638 Medical Audiology *CW .041*

CMDS 660 Clinical Practice 3 *CW .041*

CMDS 642 Auditory Processing Disorder *CW .041*

Second Semester

Co-req Language Disorders in Children (CMDS 222 in BSLT*) *CW .080**

CMDS 639 Vestibular Disorders *CW .041*

CMDS 670 Clinical Practice 4 *CW .041*

Summer

CMDS 680 Clinical Practice 5 *CW .041*

Year 2 Total CW BSLT Background (including the thesis) 1.00

Year 2 Total CW non-BSLT Background (including the thesis) 1.04

**Course offered as part of BSLT degree. Students enrolled in the MAud programme without having a BSLT are required to take these courses.*

The Degree of Master of Health Sciences (MHealSc)

See also General Course and Examination Regulations.

1. Award of the Degree With or Without an Endorsed Option; Award of the Degree with Honours

(a) The Degree of Master of Health Sciences may be awarded with or without an endorsed option. The endorsed options are in the following areas of specialisation:
   i. Environment and Health
   ii. Early Intervention
   iii. Health Behaviour Change
   iv. Health Information Management

   The programme of study for an endorsed option must conform to the requirements for that option as specified in the Schedule to these regulations.

   Courses that may be included in a programme of study for the Degree of Master of Health Sciences without an endorsed option are those listed in the Schedule to these Regulations.

(b) The Degree of Master of Health Sciences may be awarded with Honours. There shall be two classes of Honours: First Class Honours and Second Class Honours. Second Class Honours shall be awarded in two divisions: Division 1 and Division 2.

2. Qualifications Required to Enrol in the Degree

Every candidate for the Degree of Master of Health Sciences, before enrolling for the degree, shall have:

(a) i. qualified for the Postgraduate Diploma in Health Sciences, or an equivalent postgraduate qualification normally with a B average; or
   ii. qualified for a degree in a New Zealand University which is of relevance to the health sciences and the proposed course of study; or
   iii. qualified for an appropriate health or allied professional qualification requiring at least three years full-time tertiary study at an appropriate level; or
   iv. successfully completed a qualifying course prescribed by the Joint Board of Studies: Health; and
   v. presented evidence of ability for advanced level academic study; or
   vi. been admitted ad eundem statum to enrol for the Masters of Health Sciences

(b) Every candidate for the degree shall have been approved as a candidate by the Dean of Science.

3. Structure of the Degree

The programme for the Degree of Master of Health Sciences consists of Part I and Part II.

(a) A candidate admitted under (ii.) or (iii.) of Regulation 2(a) shall offer both Parts.

(b) A candidate admitted under (i.) of Regulation 2(a) for a Master of Health Sciences without an endorsed option shall offer Part II only.

(c) The Dean of Science shall determine whether a candidate admitted under (i) of Regulation 2(a) for a Master of Health Sciences with an endorsed option shall offer both Part I and Part II, or Part II only.

   Note: Relevance of the courses studied in the PGDipHealSc, or equivalent degree, to the proposed endorsed option in the Master of Health Sciences will be the criteria for determining whether a student may be admitted to Part II only.

(d) All students admitted to the Master of Health Sciences will complete a coherent programme of study approved by the Joint Board of Studies: Health.

4. Full-time/Part-time Enrolment

A candidate may be enrolled for the Degree of Master of Health Sciences either on a full-time or part-time basis. A part-time candidate is one who, because of employment, health, family or other reasons, is unable to devote his or her full-time to study. Part-time enrolment requires the approval of the Dean of Science.

5. Duration of the Course

A candidate offering both Part I and Part II shall normally follow a course of study for not less than two years of full-time study, and Part I will be completed in not less than one year and no more than two years of full-time study.

The time limits for the thesis or research project will be determined by the Dean of Science on the recommendation of the Chair of the Joint Board of Studies: Health, but will normally be no less than one year and no more than two years of full-time study.

A part-time candidate shall be required to follow a programme of study with time limits determined by the Dean of Science on the recommendation of the Chair of the Joint Board of Studies: Health.

6. Requirements for Part I

(a) The requirements for Part I shall be HLTH 401 and courses listed in the Schedule to these Regulations, or courses specified for the endorsed options. The total course weight for the MHealSc will be at least 1.0 EFTS.

(b) Candidates must satisfy the Joint Board of Studies: Health that they have the necessary prerequisite knowledge to undertake the proposed courses from the Schedule.

(c) A candidate who fails any of the courses offered for Part I will require the permission of the Dean of Science, and on the recommendation of the Chair of the Joint Board of Studies: Health, to repeat those failed courses or offer any other course in its place.

(d) A candidate who fails any courses offered for Part I and is not successful under Regulation 6(c), shall not be awarded a pass in Part I and shall not be permitted to proceed to Part II, but will be awarded a Certificate of Proficiency for each course passed.

(e) A candidate who passes all of the courses for Part I, but who does not attain a B grade average or higher shall not be permitted to proceed to Part II (unless special permission has been granted by the Dean of Science), but may apply for the award of the Postgraduate Diploma in Health Sciences.

(f) A candidate who passes all the courses for Part I and is eligible to proceed to Part II, but chooses not to do so, may apply for the award of the Postgraduate Diploma in Health Sciences.

Notes:

1. *Course work shall consist of approved courses at 400-level or higher from the University of Canterbury or another tertiary education institution in New Zealand, as approved by the Joint Board of Studies: Health.*
2. *Enrolment in courses requiring community or clinical placements will normally be limited to placements approved by the Joint Board of Studies: Health.*

7. Requirements for Part II

Part II shall consist of either:

(a) the preparation of a thesis to the value of 1.0 EFTS embodying the results of an investigation in a subject area approved by the Joint Board of Studies: Health; or

(b) course work approved by the Joint Board of Studies: Health, to a total of at least 0.5 EFTS and the preparation of a written research project report in a subject area approved by the Joint Board of Studies: Health, to a value of 0.5 EFTS.

8. Supervision of Theses

Where a thesis is required, the requirements of the General Course and Examination Regulations Part L shall be met.

Schedule to the Regulations for the Degree of Master of Health Sciences

Course Code	Course Title	EFTS	07	P/C/R/RP/EQ
HLTH 401	Health and Health Care in New Zealand	0.25	S1	P: Entry with approval of the Head of Department. R: HLTH 601 EQ: HLTH 601
HLTH 402	Health Information Management	0.25	S2	P: Entry with approval of the Head of Department. R: HLTH 602 EQ: HLTH 602

HLTH 405	Special Topic: Independent Study	0.25	W S1 S2	P: Subject to approval of the Director, Health Sciences Centre R: HLTH 605 EQ: HLTH 605
HLTH 406	Special Topic	0.25	S2	P: Subject to approval of Director, Health Sciences Centre R: HLTH 606 EQ: HLTH 606
HLTH 407	Special Topic	0.25	W S1 S2	P: Subject to approval of the Director, Health Sciences Centre R: HLTH 607 EQ: HLTH 607
HLTH 408	Special Topic	0.125	W S1 S2	P: Entry with approval of the Head of Department. R: HLTH 608 EQ: HLTH 608
HLTH 409	Special Topic: Health and Pacific Cultures	0.25	S2	P: Entry with approval of the Head of Department. R: HLTH 609 EQ: HLTH 609
HLTH 410	Pacific Health Leadership	0.25	W	P: Subject to approval of the Head of Department.
HLTH 420	Early Intervention Theory	0.25	W	P: Entry with approval of the Head of Department. R: HLTH 620 EQ: HLTH 620
HLTH 421	Early Intervention Practice	0.25	W S1 S2	P: Entry with approval of the Head of Department, HLTH 420 or HLTH620 R: HLTH 621 EQ: HLTH 621
HLTH 422	Early Intervention Advanced Practice	0.25	W S1 S2	P: Entry with approval of the Head of Department, HLTH 421 or HLTH 621 R: HLTH 622 EQ: HLTH 622
HLTH 430	Motivating Behaviour Change I	0.25	S1	P: Entry with approval of the Head of Department. R: HLTH 630 EQ: HLTH 630
HLTH 431	Motivating Behaviour Change II	0.25	S2	P: Entry with approval of the Head of Department, HLTH 430 or HLTH 630 R: HLTH 631 EQ: HLTH 631
HLTH 440	Family Nursing Assessment	0.25	S1	P: Entry with approval of the Head of Department.
HLTH 441	Family Nursing in Complex Situations	0.25	S2	P: HLTH 440. Entry with approval of the Head of Department.
HLTH 690	MHealSc Thesis	1.0	A	P: Entry with the approval of the Head of Department.
HLTH 695	Dissertation	0.5	A	P: Entry with the approval of the Head of Department.
HLTH 790	Health Sciences PhD	1.0	A	P: Entry with the approval of the Head of Department.

Courses may also be selected from within the following subjects, with the approval of the Director, Health Sciences Centre: Applied Psychology, Biological Sciences, Biochemistry, Chemical and Process Engineering, Civil Engineering, Communication Disorders, Education, Electrical and Electronic Engineering, Environmental Sciences, Geography, History, Law, Maori, Mathematics and Statistics, Natural Resources Engineering, Pacific Studies, Philosophy, Political Science, Psychology, Public Health, Social Work, Sociology.

Notes:

1. *A list of appropriate courses in each subject is available from the Heath Sciences Centre. Courses from subjects other than those listed above may also be approved by the Joint Board of Studies: Health.*
2. *Courses available through the University of Otago's Christchurch School of Medicine and Health Sciences or through other tertiary education institutions, may be approved for credit toward the degree, and may be required for specific endorsed options (see endorsement requirements).*

3. *Special Topics in Health Sciences have been included to allow development of new courses by academic/ adjunct staff in areas of special interest and expertise.*
4. *Not all courses may be offered. Please check with the appropriate Department/School.*

Endorsement Requirements for the Degree of Master of Health Sciences

Endorsed Option	Papers Required
Environment and Health	HLTH 401; PUBH 703 or GEOG 401; and approved courses to at least 1.0 EFTS, plus HLTH 690 or HLTH 691; or HLTH 401; PUBH 703 or GEOG 401; and other approved courses to at least 1.5 EFTS, plus HLTH 695.
Early Intervention	HLTH 401; HLTH 420; HLTH 421; and other approved courses (which may include HLTH 422/622) to at least 1.0 EFTS, plus HLTH 690 or HLTH 691; or HLTH 401; HLTH 420; HLTH 421; and other approved courses (which may include HLTH 422/622) to at least 1.5 EFTS, plus HLTH 695.
Health Behaviour Change	HLTH 401; HLTH 430; HLTH 431; and one or more other approved courses to at least 1.0 EFTS, plus HLTH 690 or HLTH 691; or HLTH 401; HLTH 430; HLTH 431; and other approved courses to at least 1.5 EFTS, plus HLTH 695.
Health Information Management	HLTH 401; HLTH 402; PUBH 706 or GEOG 401; and one or more approved courses to at least 1.0 EFTS, plus HLTH 690 or HLTH 691; or HLTH 401; HLTH 402; PUBH 706 or GEOG 401; and other approved courses to at least 1.5 EFTS, plus HLTH 695.

Notes:

1. *PUBH 703: Health and Environmental and PUBH 706: Health Systems are offered through the University of Otago's Christchurch School of Medicine and Health Sciences.*
2. *HLTH 690, 691 and 695 must address an approved topic relevant to the endorsed option be approved before enrolment.*

The Degree of Master of Science (MSc)

See also General Course and Examination Regulations.

1. Subjects in Which the Degree May be Awarded; Award of Degree with Distinction or Merit, or Honours

(a) The subjects for the Degree of Master of Science are those listed in Schedule 1 to these Regulations.

(b) The Degree of Master of Science may be awarded with Distinction or Merit provided that the additional requirements of Regulation 14 are met.

(c) The Degree of Master of Science may be awarded with Honours provided that the additional requirements of Regulation 15 are met.

2. Qualifications Required to Enrol in the Degree

(a) Every candidate for the Degree of Master of Science shall, before enrolling for the degree, fulfil one of the following conditions: either

i. qualify for the award of the ordinary Degree of Bachelor of Science; or
ii. qualify for a Bachelors degree and if necessary pass a qualifying programme consisting of such courses from the schedule to the regulations for the Degree of Bachelor of Science as may be required by the Dean of Postgraduate Studies; or
iii. qualify for the award of the Degree of Bachelor of Science with Honours; or
iv. qualify for the award of a Postgraduate Diploma in Science (Note: Candidates who qualify for a Canterbury PGDipSc are subject to the provisions of PGDipSc Regulation 5); or
v. qualify for the award of a Postgraduate Diploma in Engineering Geology (Note: Candidates who qualify for the Canterbury Postgraduate Diploma in Engineering Geology are subject to the provisions of the PGDipEngGeol Regulation 5); or
vi. qualify for the award of a Postgraduate Diploma in Science (Hazard and Disaster Management (Note: Candidates who qualify for the Canterbury Postgraduate Diploma in Science (Hazard and Disaster Management) are subject to the provisions of the PGDipSc Regulation 5); or

vii. be admitted ad eundem statum as entitled to enrol for the degree of Master of Science; or

viii. for the Master of Science in Biotechnology only, be admitted by any other of the conditions of Regulation 2(a) or qualify for the award of Bachelor of Engineering, with or without Honours.

(b) Every candidate for the degree shall have been approved as a candidate by the Dean of Science.

Note: Relevance and standard of undergraduate studies will be criteria for approval.

3. Structure of the Degree

The programme for the Degree of Master of Science consists of Part I and Part II:

(a) A candidate admitted under (i) or (ii) of Regulation 2(a) shall offer both Parts.

(b) A candidate admitted under (iii), (iv) or (v) of Regulation 2(a) in the same subject as for the BSc(Hons) degree, PGDipSc or PGDipEngGeol shall offer Part II only.

(c) In the case of a candidate admitted under (vi), or under (iii), (iv), or (v) to a different subject, the Dean of Postgraduate Studies shall determine whether the candidate shall offer both Parts I and II, or Part II only, and in such cases may vary the form of the Part I requirements.

(d) In special circumstances a candidate in Biotechnology may be permitted by the Dean of Postgraduate Studies to satisfy the Part I and Part II requirements by passing an approved programme of study completed in one year.

4. Concurrent or Sequential Enrolment in Parts I and II

A candidate who offers both Parts I and II may be enrolled in these sequentially or concurrently. Sequential enrolment means Part I is completed before the candidate starts Part II.

Concurrent enrolment means that Parts I and II are taken concurrently with the proviso that the requirements of Part I must be completed within two years if the candidate is a full-time student, or within such time as is determined by the Dean of Postgraduate Studies, under regulation 6, if the candidate is a part-time student.

The total course-weight of the programme in each of the first two years of concurrent enrolment will normally be at least 1.0CW for a full-time student, though this may be reduced to a minimum of 0.95 CW if the programme contains some courses from another subject, as permitted under Regulation 7(c).

Candidates who wish to enrol concurrently in Parts I and II must have at least a B+ grade average in the prerequisites listed in Schedule 1, and concurrent enrolment also requires the approval of the Head of Department/School.

5. Part-time Enrolment

Enrolment for the Degree of Master of Science shall be either on a full-time or a part-time basis. A part-time candidate is one who, because of employment, health, family or other reasons, is unable to devote his or her full-time to study; part-time enrolment requires the approval of the Dean of Science.

6. Duration of the Degree

For a full-time candidate the duration of study and other limits are as listed in Schedule 2 to these Regulations. A candidate whose application to enrol for this degree on a part-time basis is accepted shall be required to follow a programme of study with time limits determined by the Dean of Science following recommendations by the Head of Department/School.

Note: The time limits for a candidate studying part-time shall normally be twice those for the equivalent full-time course.

7. Requirements for Part I

(a) A candidate offering Part I shall have met the prerequisites in Schedule 1 to these Regulations, or their equivalents.

The requirements for Part I shall be as listed in Schedule 2 and as laid down in the Prescriptions for the subject. A candidate who fails any of the courses offered for Part I shall not be permitted to repeat those courses, or to offer any other course(s) in their place (but refer to regulation 7b).

If a candidate has failed no more than 0.25 CW of the Part I programme, the Dean of Science, on the advice of the Head of Department/School concerned, may recommend a pass in Part I as a whole. With the recommendation of the Head of the Department/School, and the permission of the Dean of Science, such a candidate may offer Part II for examination if he or she has a grade average (including any failed courses) of at least B- (some departments require a higher grade average). If a candidate qualifies for a pass in Part I but is not permitted to offer Part II for examination, or if such a candidate chooses not to offer Part II for examination, he or she may apply for the award of the Postgraduate Diploma

in Science or the Postgraduate Diploma in Engineering Geology, whichever is appropriate.

A candidate who fails more than 0.25 CW of the Part I programme shall not be awarded a pass in Part I as a whole and shall not be permitted to offer Part II for examination, but he or she will be awarded a Certificate of Proficiency for each course passed.

A candidate who passes all the courses for Part 1, but who does not attain a grade average of at least C+ (some departments/school require a higher grade average), or who otherwise does not attain a standard satisfactory to the Dean of Science in the Part I requirements as a whole, shall not be permitted to repeat any part of the Part I programme, or to offer Part II for examination, but may apply for the award of the Postgraduate Diploma in Science or the Postgraduate Diploma in Engineering Geology, whichever is appropriate.

Notwithstanding anything else in Regulation 7(a), before offering Part II for examination, a candidate must pass Part I to the standard required by the Head of Department/School, which standard may be specified in Schedule 1 to these regulations.

(b) Notwithstanding Regulation 7(a), a candidate offering Part I who qualifies for consideration for an aegrotat award in some or all of the courses (see General Course and Examination Regulation H) may elect either (i) to accept for the courses affected the aegrotat grades recommended by the examiners under that Regulation; or (ii) to sit a further examination and/or present again all or some of the assessed work if that examination or assessed work formed the basis of the aegrotat application. The time or times for representation of work or further examination will be set by the Dean of Science, after consulting the Head of Department/School.

(c) The total course-weight of the Part I programme, if all courses are offered in one subject only, will be at least 1.0. A candidate may, with the approval of the Heads of Department/School concerned, replace up to 0.5 CW of the Part I programme prescribed for the subject offered by courses prescribed for another subject at an equivalent level for an Honours degree or a Masters degree, and in such a situation the total course-weight of the Part I programme must be at least 0.95.

8. Thesis Requirement

Except as provided in Regulation 9, Part II shall consist of the preparation of a thesis embodying the results of an investigation in some branch of one of the subjects listed in Schedule 1 to these regulations.

9. MSc in Applied Psychology

A candidate in Applied Psychology shall, instead of presenting a thesis, satisfy the Part II requirement by passing in one year a course as specified in Schedule 1 to the MSc Regulations, and presenting a written report on a research project by a prescribed date.

10. Time Limits for Presentation of Theses

Where a thesis is required, the maximum time limits for its presentation are specified in Schedule 2 to these regulations. The maximum time limit for a part-time candidate will be determined by the Dean of Science, as noted in Regulation 6. The minimum time limit is that required by the candidate to complete the equivalent of 1.0 CW (typically this would be close to one year full-time study).

11. Extension of Time for Presentation of Theses

In special circumstances the Dean of Science may approve an extension of the time specified in Schedule 2 to these regulations.

12. Supervision of Theses

(a) Where a thesis is required, the requirements of the General Course and Examination Regulations, Part L, shall be met.

(b) A candidate shall, before commencing the research to be described in the thesis, secure the approval of the Head of the Department/School concerned for the topic chosen and for the proposed research programme.

(c) Supervisors shall be appointed in accordance with the General Course and Examination Regulations, Part L.

(d) The candidate shall work under the direction of the supervisors and shall meet with and report to the senior supervisor as has been determined under the agreement signed on registration of the research proposal. Except for field work in New Zealand under the direction of the senior supervisor, the candidate shall normally work on the University campus, and laboratory work shall normally be carried out within the University institution. A Head of Department/School may give approval for work to be carried out at another institution in New Zealand for a period

not exceeding one month, but permission of the Dean of Postgraduate Studies is required if the period exceeds one month, or if any of the work, including field work, is to be carried out overseas.

13. Examination of Theses

(a) When a thesis is examined, there shall be two examiners, as specified in the General Course and Examination Regulations, Part L.

(b) A candidate shall not present a thesis any part of which has previously been accepted for any degree.

(c) The examiners may require the candidate to undergo an oral examination on the subject of the thesis or on related subjects.

(d) If the thesis at its first presentation is unsatisfactory, the Dean of Science may, on the recommendation of the examiners, permit the candidate to revise the thesis and re-submit it by a specified date.

(e) If the examiners' final recommendation is that the thesis be awarded a failing grade, the degree of Master of Science shall not be awarded.

Note: The weighting ratios of Parts I and II, as specified in Schedule 2 to these regulations, do not apply if a thesis offered for Part II is unsatisfactory at its final presentation. If the candidate's thesis has been awarded a failing grade, and if that candidate has successfully completed Part I, he or she may apply for the award of the Postgraduate Diploma in Science or the Postgraduate Diploma in Engineering Geology, whichever is appropriate.

14. MSc with Distinction or Merit

Where the candidate has offered Part II only, by thesis, and in the opinion of the examiners the thesis shows special merit, they shall recommend that the degree be awarded with Distinction or Merit, provided that the thesis is presented within the time limits specified in Schedule 2 to these Regulations or that for a part-time candidate the thesis is presented within the time limits determined by the Dean of Postgraduate Studies under Regulation 6.

Note: The award of Distinction is equivalent to First Class Honours; the award of merit is equivalent to Second Class Honours Division 1.

15. Award of Honours

Where the candidate has offered both Parts, the degree may be awarded with Honours.

(a) There shall be two classes of Honours: First Class Honours and Second Class Honours. Second Class Honours shall be awarded in two divisions: Division 1 and Division 2.

(b) The weighting of the two Parts in the assessment (including the determination of Honours) is given in Schedule 2 to these Regulations.

(c) The requirements of Parts I and II shall normally be completed by a full-time candidate within the time limits specified in Schedule 2 to these Regulations. The time limits for a part-time candidate shall be determined by the Dean of Postgraduate Studies under Regulation 6.

(d) A full-time candidate for the degree in any subject shall be eligible for the award of Honours only if all the requirements for the degree are completed within three years of the date of enrolment as a candidate for Part I of the degree in that subject. The eligibility for Honours of a part-time candidate shall be determined in each case by the Dean of Postgraduate Studies.

(e) In special circumstances the Dean of Postgraduate Studies may, on recommendation of the Head of Department/School, extend the period of eligibility for the award of Honours beyond the time limits specified in 15(c), and/or 15(d).

Note: For the purposes of Regulation 15(d) the date of enrolment is 1 March or 1 August of the year in which the candidate first enrols for the degree, depending on whether the candidate started Part I in the first or second semester, respectively.

16. Award of MSc instead of PhD

Where a thesis has been presented for the Degree of Doctor of Philosophy on a subject listed in Schedule 1 to these regulations, and the examiners are of the opinion that it does not justify the award of that degree, they may recommend the award of the Degree of Master of Science, without Honours or Distinction or Merit.

17. Transfer from MSc to PhD

With the approval of the Dean of Postgraduate Studies, and on the recommendation of the Head of Department/School, a student who has been enrolled for MSc Part II for a period of at least 6 months full-time, or the equivalent part-time period, and who has completed MSc Part I or is offering only Part II, may apply for transfer to the PhD.

Candidates wishing to do this should refer to PhD Regulation 3(d). A candidate who transfers to PhD, and who completed Part I, may apply for the award of the PGDipSc or PGDipEngGeol, whichever is appropriate.

18. Transfer from MSc to PGDipSc or PGDipEngGeol

A candidate who is enrolled for M.Sc. Part I may at any time apply to the Dean of Science for transfer to either the PGDipSc or PGDipEngGeol, whichever is appropriate.

19. Award of PGDipSc or PGDipEngGeol Instead of Credit Towards MSc

A candidate who has successfully completed Part I of the Degree of Master of Science, or who under Regulation 7(a) has passed Part I as a whole, may have this part of the programme credited towards a PGDipSc or PGDipEngGeol, whichever is appropriate, instead of the Degree of Master of Science.

Schedule 1 to the Regulations for the Degree of Master of Science

Applied Psychology

Part I consists of PSYC 460 and three further courses, normally selected from APSY 601-630, PSYC 401, 435, 450-451, 461. With the approval of the Head of Department, one or more courses with PSYC prescriptions may be substituted. Note: Not all courses may be offered in any one year.

Part II consists of one course (selected from the same list as Part I but with the addition of APSY 631) and a research project (APSY 660), which are to be completed in a single academic year.

Note: Both whole-of-year courses and semester courses are offered. Where semester courses are selected, the combination of courses in Part 1 must be equivalent to 1.000 EFTS and Part II a course plus research project equivalent to 1.000 EFTS.

P: Six courses (not fewer than 150 points) from PSYC 200- and PSYC 300-level courses, including:
(1) PSYC 206 and
(2) one from PSYC 207-211, and
(3) PSYC 344, and
(4) one from PSYC 331-335, 343 and
(5) one further PSYC 300-level course and
(6) one further PSYC 200- or PSYC 300-level course.

A B average in three PSYC 300-level courses is normally required.

Note: Enrolment in this course is limited. See the Limitation of Entry regulations.

Astronomy

Part I consists of a project (ASTR 480), ASTR 424, and three courses chosen from the following: at least one course from ASTR 421-3, 425-6; and up to two courses chosen from PHYS 401-460, but only one of these courses may be from PHYS 441-460. The choice of courses is subject to the approval of the Head of Department.

The requirement for Part II is a thesis (ASTR 690) which shall normally be presented not later than 12 months after the date of enrolment for Part II.

In determining the class of Honours, Parts I and II are weighted in the ratio 2:3.

P: 84 points at 300-level approved by the Head of Department of Physics and Astronomy.

Biochemistry

Part I: Four courses as for Biochemistry Honours 400-level, selected with the approval of the Course Coordinator.

Part II: A thesis (BCHM 690) on a research project selected with the approval of the Course Co-ordinator. The thesis shall normally be presented not later than 16 months after the date of enrolment for Part II.

In determining the class of Honours, Part I and Part II are weighted in the ratio 2:3.

P: 84 points in 300-level courses: 70 points from BCHM 301 (BIOL 331/PAMS 308), BCHM 302 (CHEM 325) and BCHM 381; and additional points normally from CHEM 322, 324, 362 or 381 or BIOL 313 (PAMS 303), BIOL 352 (PAMS 310), BIOL 330 (PAMS/ZOOL 309), BIOL 353 and 354 (BIOL 350/ ZOOL 301), or BIOL 351 (ZOOL 306).

Biotechnology

Part I: BIOL 491, plus three others to be selected from: BIOL 401-402, BIOL 404-409, BIOL 430-431, BIOL 434-435, BIOL 453, BIOL 492-493. With the approval of the Head of the School of Biological Sciences, one course may be chosen from other 400-level BIOL or BCHM courses.

Part II: A thesis (BIOT 690) which shall normally be presented no later than 16 months after the date of enrolment for Part II. Students must consult the MSc regulations for details of other requirements for this degree. In determining the class of Honours, Part I and Part II are weighted in the ratio 2:3.

P: (1) BIOL 252; and
(2) BIOL 352; and
(3) one course selected from BIOL 313, 330, 301.

Note: Students will normally be expected to take BIOL 309 (BIOL 301).

Cellular and Molecular Biology

Part I is four courses selected from those listed for CEMB 400-level requirements.

Part II is a thesis (CEMB 690) which shall normally be presented not later than 16 months after the date of enrolment for Part II. Students must consult the MSc regulations for details of other requirements for this degree. In determining the class of Honours, Part I and Part II are weighted in the ratio 2:3. Note: In all Cellular and Molecular Biology courses (CEMB), a satisfactory performance is required in both the year's work and the written papers.

P: 84 points from BCHM 301, BIOL 313 (PAMS 303), BIOL 352 (PAMS 310), BIOL 351 (ZOOL 306), BIOL 330 (ZOOL/PAMS 309) and 28 other subsidiary points approved by the Course Co-ordinator. Students will normally be expected to have passed BIOL 309 (BIOL 301).

Chemistry

Part I: four courses chosen from CHEM 461-474 subject to the following qualifications:

Practical work is required in the Part I year and each candidate must submit a project report to the Head of Department not later than the date specified in the course information sheet issued upon enrolment.

The requirement for Part II is a thesis (CHEM 690) which, to be considered for Honours or for Distinction, must be submitted not later than 12 months after the date of enrolment for Part II.

In determining the class of Honours, Part I and Part II are weighted in the ratio 2:3.

P: (1) At least 66 points from CHEM 221-223, 233, 243 and 261-273; and
(2) CHEM 281 and 282; and
(3) at least 56 points from CHEM 321-363; and
(4) at least one of CHEM 381 and 382.

Candidates credited with only 56 points in 300-level Chemistry courses will be required to achieve concurrently a satisfactory standard in a further 14 points at 300-level as approved by the Head of Department.

Computational and Applied Mathematics

Part I: Eight approved courses chosen with the approval of the Course Co-ordinator from MATH 401-490 (other than MATH 449), MSCI 451-462, STAT 401-490 (other than STAT 449).

Note: With the approval of the Course Co-ordinator, candidates may substitute one or two courses from other subjects in an application area.

Part II: A thesis (CAMS 690).

The weighting of Parts I and II will be in the ratio 1:2.

P: Courses totalling 128 points made up as follows:
(1) 84 points at 300-level from MATH 323, 346, 352, 353, 361, 362, 363, 371 and 381; and
(2) 44 points from other approved courses at 200-level or above. Normally these would come from CHEM, COSC, MATH, MSCI, PHYS, STAT or ENGINEERING courses.

Computer Science

Part I: Eight half-courses chosen from COSC 401-439.

Part II: A thesis (COSC 690) is required, and students must consult the MSc Regulations for details of this and other requirements for the degree.

The weighting of the two Parts in the assessment (including the determination of Honours) shall be 1:2 for Part I to Part II.

P: 56 points at 300-level in Computer Science.

Ecology

Part I: Four course selected from those listed for Ecology BSc(Hons), selected with the approval of the Head of the School of Biological Sciences.

Part II: A thesis (ECOL 690) which shall normally be presented not later than 16 months after the date of enrolment for Part II. The topic of the research for the thesis must be approved by the Head of the School of Biological Sciences.

Students must consult the MSc Regulations for details of the requirements for the degree. In determining the class of Honours, Part I and Part II will be weighted in the ratio of 2:3.

P: (1) 56 points from BIOL 370, BIOL 372, BIOL 374, BIOL 375; and
(2) BIOL 309 or BIOL 301 or equivalent.

Engineering Geology

The course of study for Part I includes a total of eight courses. The course selection will normally include: ENGE 471, ENGE 472, ENGE 485, ENGE 486, and at least one course chosen from GEOL 473-489, and at least one course chosen from ENGE 476-482 (as for Engineering Geology (BSc(Hons)) with the approval of the Head of the Department of Geological Sciences.

Notes:

1. *With the approval of the Head of Department one of the courses ENGE 471, 472, 485, 486 may be*

replaced by one other ENGE course.

2. *With the approval of the Head of Department up to two courses from GEOL 473-489 may replace up to two of the optional courses, or one full year course from another subject may replace two of the optional courses.*
3. *Practical and field work may be required as part of any ENGE 471-486 courses.*
4. *Not all courses may be offered in any one year.*

Part II: Thesis (ENGE 690). The thesis shall normally be presented not later than 16 months after enrolment.

Parts I and II are weighted in the ratio of 1:2. The concurrent thesis is assigned a course weight according to the course work carried out at the same time, so that the total EFTS for the year is 1.000.

In order to proceed to Part II, the Head of Department normally requires the student to have attained a B+ grade average in Part I. Students who fail to meet this requirement, and who are declined entry to Part II by the Head of Department, may apply to have the courses credited towards the Postgraduate Diploma in Engineering Geology.

P: (1) GEOL 351 and GEOL 352 (or equivalent fieldwork), and 56 points from other GEOL 300-level courses to have been passed with a grade average that meets the approval of the Head of Department (the normal requirement is at least a B grade average); and
(2) 18 points of MATH 100-level courses. (Note: This prerequisite may be waived by the Head of Department if the student can demonstrate an existing suitably high level of ability in Mathematics.)

Environmental Science

It is desirable that an appropriate course of data analysis and computing should have been included in the undergraduate degree.

Part I: ENVR 410 (Concepts and Principles in Environmental Science), ENVR 411 (Case Studies in Environmental Science), and courses totalling not less than 0.75 course weighting selected from relevant courses offered by the Environmental Science home departments/schools of Forestry (FORE), Geography (GEOG), Geological Sciences (GEOL and ENGE), and Biological Sciences (BIOL), and from relevant courses, as approved by the Coordinator, that are offered by Antarctic Studies (ANTA), Chemistry (CHEM), Chemical and Process Engineering (ENCH), Civil Engineering (ENCI) and Mathematics and Statistics (MATH and STAT).

The selection should form a coherent thematic programme, and must be discussed with the Co-ordinator. Note that normally all individual course prerequisites must be satisfied.

Part II: A thesis (ENVR 690) which shall normally be presented not later than 16 months after the date of enrolment for Part II.

In determining the class of Honours, Part I and Part II are weighted in the ratio of 2:3.

P: 84 points in appropriate 300-level courses in Science, Engineering and Forestry approved by the Co-ordinator. A minimum B grade in relevant 300-level courses is normally required.

Geography

Part I: Four courses chosen from GEOG 401-420, with approval of the Head of Department. Enrolment in GEOG 420 Research Project is recommended.

Note: Not all courses will be offered in any one year.

Part II: Thesis (GEOG 695).

In determining the class of Honours Part I and Part II are weighted in the ratio 1:1.

P: Students will normally be expected either to have passed 84 points in 300-level courses approved by the Head of the Department of Geography (including GEOG 309 and at least 28 other points in 300-level Geography courses) or to have completed 112 points at 300-level, of which 56 are in Geography and 56 are in subjects approved by the Head of the Department of Geography.

Geology

The course of study for Part I is GEOL 471, and seven courses chosen from GEOL 473-489 with the approval of the Head of the Department of Geological Sciences. Part II is a thesis (GEOL 690) which shall normally be presented no later than 16 months after the date of enrolment for Part II.

In determining the class of Honours, Part I and II are weighted in the ratio of 1:2.

In order to proceed to Part II, the Head of Department normally requires the student to have attained a B+ grade average in Part I. Students who fail to meet this requirement, and who are declined entry to Part II by the Head of Department, may apply to have the courses credited towards the Postgraduate Diploma in Science.

Notes:

1. *With the approval of the Head of the Department of Geological Sciences, up to three courses from ENGE 476-482 (Engineering Geology) may replace*

up to three of the optional courses, or one full year course from another subject may replace two of the optional courses.

2. *Practical and fieldwork may be required as part of any GEOL 471-489 courses.*
3. *Not all courses may be offered in any one year.*

P: GEOL 351 and GEOL 352 (or equivalent fieldwork), and 56 points from other GEOL 300-level courses, these prerequisite courses to have been passed with a grade average that meets the approval of the Head of Department (the normal requirement is at least a B grade average).

Hazard and Disaster Management

Part I: The programme of study consists of HAZM 401, HAZM 403, ENCI 601, ENCI 462 (or equivalent), and four other courses chosen to form a coherent programme in the area of hazard and disaster management with the approval of the Programme Director, Department of Geological Sciences. *Note: Not all courses may be offered in any one year.*

Part II: A thesis (HAZM 690).

P: Part I:

(1) 18 points of 100-level STAT courses or equivalent*; and

(2) 84 points from 300-level courses in the Schedule to the BSc Regulations, these courses to have been passed with a grade average that meets the approval of the Head of the Department of Geological Studies (the normal requirement is at least a B grade average); plus

Part II: Completion of Part I.

(3) In order to proceed to Part II, the Head of the Department of Geological Sciences normally requires the student to have attained a B+ grade average or better in Part I. students who fail to meet this requirement, and who are declined entry to Part II by the Head of Department, may apply to have the courses credited towards the Postgraduate Diploma in Science (Hazard and Disaster Management).

History and Philosophy of Science

Part I consists of four courses selected from HAPS 401-433 and HAPS 480, the selection to be approved by the Co-ordinator(s) of HPS Studies in consultation with the Heads of Department/School in which the courses selected are taught. Normally these courses will include HAPS 401, 402, unless these are specifically excluded by restrictions, and also include HAPS 480. One or more lecture courses may be replaced by 400-level courses with a total course weighting of 0.25 in another Science subject, with the approval of the Co-ordinator(s) of HPS Studies.

Part II: A thesis (HAPS 690).

The credit weighting of Parts I and II shall be 1:1.

P: 84 points in 300-level courses of the BSc degree approved by the Coordinator of HPS Studies.

Management Science

Part I: Six courses as approved by the Head of the Department, chosen from MSCI 451-469.

Part II: A thesis (MSCI 690).

In determining the class of Honours, Part I and II are weighted in the ratio 1:1.

P: 84 points in 300-level courses including MSCI 310, 311, 315 and 316.

Mathematics

Part I: Eight courses chosen from MATH 401-490 and STAT 401-490 (other than MATH 449 or STAT 449). One of the eight courses must be MATH 443 if the student has not been credited with MATH 343 previously. Normally at least six courses will be chosen from the MATH course list.

Part II: A thesis (MATH 690).

The weighting of Parts I and II shall be in the ratio 1:2.

P: Part I: 44 points from MATH 210-299; and 56 points from MATH 310-399; and an additional 28 points from MATH 310-399 or STAT 310-399 or other approved courses.

Medical Physics

Part I: Six courses from MDPH 401-410; one of these may be replaced by an appropriate course from another subject, subject to the approval of the Course Co-ordinator.

Part II: A thesis (MDPH 690), which shall normally be presented no later than 12 months after the date of enrolment for Part II.

In determining the class of Honours, Parts I and II are weighted in the ration 2:3.

P: 84 points at 300-level approved by the Head of Department.

Medical Physics (Clinical)

Only students accepted as Medical Physics Registrars by the Australasian College of Physical Scientists and Engineers in Medicine are eligible for this programme.

Part I: Six courses from MDPH 401-410; one of these

may be replaced by an appropriate course from another subject, subject to the approval of the Course Co-ordinator.

Part II: A thesis (MPHC 690), which shall normally be presented no later than 12 months after the date of enrolment for Part II.

In determining the class of Honours, Part I and II are weighted in the ratio 2:3.

P: 84 points at 300-level approved by the Head of Department.

Microbiology

Part I: Four courses. A minimum of three courses from BIOL 434–493; the fourth course may be chosen, with the approval of the Head of the School of Biological Sciences, from BIOL 401–409, 421, 453, 474, 477, 478.

The Head of the School of Biological Sciences will normally require a candidate to achieve a satisfactory standard in BIOL 309 (BIOL 301), in addition to the four courses selected above if the student has not already passed the course at an earlier stage.

The requirement for Part II is a thesis (MBIO 690) which shall normally be presented no later than 16 months after the date of enrolment for Part II. Students must consult the MSc Regulations for details of the other requirements for this degree.

In determining the class of Honours, Part I and II are weighted in the ratio 2:3.

P: 84 points in 300-level courses approved by the Head of the School of Biological Sciences, including at least 56 points from BIOL 302, 313, 330, 331, 352, 370, 371, 372.

Philosophy

Part I: Eight courses from PHIL 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 463, 464, 467, 468, 469, 470, 471, 472, 474, 475 (as for Philosophy BA(Hons)).

Part II: A thesis (PHIL 695).

In determining the class of Honours, Part I and II are weighted in the ratio 1:1.

P: 56 points in Philosophy at 300-level.

Physics

Part I consists of a research project, PHYS 480, and four courses chosen from PHYS 401-440; one of these courses may be replaced by a PHYS 441-460 course or an appropriate course from another subject. The choice of courses is subject to the approval of the Head of the Department of Physics and Astronomy.

The requirement for Part II is a thesis (PHYS 690) which shall normally be presented not later than 12 months after the date of enrolment for Part II.

In determining the class of Honours, Parts I and II are weighted in the ratio 2:3. Students should consult the MSc Regulations for further requirements.

P: 84 points at 300-level approved by the Head of Department.

Plant Biology

Part I: Four courses to be selected, with the approval of the Head of the School of Biological Sciences, from: BIOL 401-409, BIOL 421, BIOL 430-432, BIOL 434-436, BIOL 453, BIOL 471-474, BIOL 476, BIOL 478, BIOL 490-493.

Part II: A thesis (PBIO 690) which shall normally be presented no later than 16 months after the date of enrolment for Part II. Students must consult the MSc regulations for details of other requirements for this degree. In determining the class of Honours, Part I and Part II are weighted in the ratio 2:3.

P: 84 points in 300-level courses.

Note: Students will normally be expected to take BIOL 309 (BIOL 301).

Psychology

Part I: Four full courses (or their half course equivalents) from PSYC 401-470.

Part II:

PSYC 601 Research Methods in Psychology (R: PSYC 460)
PSYC 695 Psychology MSc Thesis

P: Six courses (not fewer than 150 points) from PSYC 200- and PSYC 300-level courses, including:
(1) PSYC 206 and
(2) one from PSYC 207-211, and
(3) PSYC 344, and
(4) one from PSYC 331-335, 343 and
(5) one further PSYC 300-level course and
(6) one further PSYC 200- or PSYC 300-level course.

A B average in three PSYC 300-level courses is normally required.

Statistics

Part I: Eight courses chosen from STAT 401-490 and MATH 401-490 (other than STAT 449 or MATH 449). One of the eight courses must be STAT 464 if the student has not been credited with STAT 214 previously. Normally at least six courses will be chosen from the STAT course list.

Part II: A thesis (STAT 690)

The weighting of Parts I and II shall be in the ratio of 1:2.

P: Part I: MATH 109 or MATH 199; 33 points from STAT 210-299; 56 points from STAT 310-399; and an additional 28 points from MATH 310-399 or STAT 310-399 or other approved courses.

Zoology

Part I: Four courses from BIOL 422, 430-432, 433 (BCHM 404), 450-452, 470-476, 490, selected with the approval of the Head of the School of Biological Sciences.

Part II: A thesis (ZOOL 690) which shall normally be presented not later than 16 months after the date of enrolment for Part II.

Students must consult the MSc Regulations for details of the other requirements for this degree.

In determining the class of Honours, Part I and Part II are weighted in the ratio 2:3.

P: 84 points in 300-level courses approved by the Head of School, including at least 56 points from BIOL 330, 350, 351, 370, 372, 373. Students will normally be expected to have passed BIOL 309 (BIOL 301).

Schedule 2 to the Regulations for the Degree of Master of Science

Programme of Study

All candidates for the degree must complete Part II. Some candidates must complete both Parts I and II, and candidates are referred to Regulation 3 which explains what the requirements are for candidates with the various entry qualification.

Part I

Part I normally consists of courses prescribed for the subject, and which have a total course weighting of at least 1.0. The Prescriptions Section of the Calendar must be referred to for details of the requirements for each subject.

In Astronomy, Geography, and Physics, the prescribed courses include a research project. Regulations 7 allows a candidate, with the approval of the Head of Department/School, to replace up to 0.5 course weight of the prescribed programme with courses prescribed for another subject at an equivalent level, and in such cases the total course weight for Part I must be at least 0.95.

Part II

Part II consists of a thesis, except in Applied Psychology where Part II consists of course work with a weighting of 0.25 and a Research Project of weighting 0.75, and in Biotechnology where Part II consists of course work with a weighting of 0.75 and a Report of weighting 0.25. A thesis has a minimum course weighting of 1.0.

Time Limits and the Weighting of Parts I and II

Note: The time limits noted below are for full-time study. Candidates who wish to study on a part-time basis should refer to Regulations 5 and 6.

Subject	Max. time limit (months) for Part II only if taken alone or sequentially*, and retaining eligibility for Honours or Distinction/Merit	Max. time limit (months) for Part II only if taken alone or sequentially*, without eligibility for Honours or Distinction/Merit	Max. time limit (months) for Parts I and II if taken concurrently* and retaining eligibility for Honours	Max. time limit (months) for Parts I and II if taken concurrently* and without eligibility for Honours	Weighting ratio Part I to Part II
Applied Psychology	12	12	24	24	1:1
Astronomy	12	12	24	24	2:3
Biochemistry	16	24	28	36	2:3
Biotechnology	16	24	28	36	2:3
Cellular and Molecular Biology	16	24	28	36	2:3
Chemistry	12	24	24	36	2:3

Computationaland Applied Mathematics	24	24	36	36	1:2
Computer Science	16	24	28	36	1:2
Ecology	16	24	28	36	2:3
Engineering Geology	16	24	28	36	1:2
Environmental Science	16	24	28	36	2:3
Geography	12	12	24	24	1:1
Geology	16	24	28	36	1:2
Hazard and Disaster Management	16	24	28	36	1:2
History and Philosophy of Science	24	24	36	36	1:1
Management Science	12	24	24	36	1:1
Mathematics	24	24	36	36	1:2
Medical Physics	12	12	24	24	2:3
Medical Physics (Clinical)	12	12	24	24	2:3
Microbiology	16	24	28	36	2:3
Philosophy	24	24	36	36	1:1
Physics	12	12	24	24	2:3
Plant Biology	16	24	28	36	2:3
Psychology	24	24	36	36	1:1
Statistics	24	24	36	36	1:2
Zoology	16	24	28	36	2:3

Note: For the purposes of calculating time limits, the nominal dates for most candidates are either 1 March or 1 August, depending on whether the candidate first enrolled at the start of the first or second semester.

Candidates who enrol in Part II only, to do a thesis, may start at any time, subject to the approval of the Head of Department/School, and for such candidates the time limits given here will be calculated from the actual start date, which must be recorded in the College of Science. Candidates who complete both Parts I and II sequentially may delay the start of Part II, and record a specific start date, but candidates doing this should be aware or Regulation 15(d) which requires completion of both Parts I and II within three years of the commencement of Part I, if eligibility for Honours is to be retained.

**See Regulation 4 for an explanation of concurrent and sequential enrolment in Parts I and II. Concurrent enrolment requires approval of the Head of Department/School, and a grade average of B+ in prerequisite courses.*

***Time limits in Applied Psychology are slightly less than 12 and 24 months, so that the research project required for Part II must be completed not later than the first Monday in February. Note: Part II of the Applied Psychology programme is under review in 2005. Students enrolling in Applied Psychology in 2005 may be required to complete a thesis in 2006, in place of the existing Part II programme.*

The Degree of Master of Speech and Language Therapy (MSLT)

See also General Course and Examination Regulations.

1. Qualifications Required to Enrol in the Degree

A candidate for the Degree of Master of Speech and Language Therapy shall have:

(a) i. qualified for the award of the Degree of Bachelor of Speech and Language Therapy; or
ii. been admitted ad eundem statum as entitled to enrol for the degree of Master of Speech and Language Therapy, and

(b) been approved as a candidate for the degree by the Dean of Science.

Note: Relevance and standard of undergraduate studies are the main criteria for approval.

2. Qualifying Programme of Study

If a candidate does not qualify for admission under regulation 1, he or she may be admitted to a qualifying programme of study specified by the Head of Department and approved by the Dean of Science. Completion of this programme to a standard deemed satisfactory by the Dean of Science will qualify the candidate for enrolment in the Degree of Master of Speech and Language Therapy.

3. Full-time and Part-time Study

A candidate shall normally be enrolled as a full-time candidate. A full-time candidate is one who throughout the calendar year regards study and research for the Master of Speech and Language Therapy as a full-time occupation.

With the approval of the Academic Board, a candidate may be enrolled as a part-time candidate. A part-time candidate is one who because of employment, health, family or other reasons is unable to devote his or her full-time to study.

4. Structure of the Degree

The programme for the Degree of Master of Speech and Language Therapy consists of one course and a thesis. The candidate for the degree of Master of Speech and Language Therapy shall:

(a) enrol and pursue either full-time for one year or part-time for not less than two years and not more than three years a programme of study approved by the Dean of Science;

(b) during the programme of study, pass CMDS 605;

(c) at the completion of the programme of study, complete a thesis.

5. Preparation, Presentation and Examination of Project Report

i. The thesis work shall be completed, and the thesis submitted and examined, in accordance with the requirements of the General course and Examination Regulations, Part L, Theses.

ii. The examiners may require a candidate for MSLT to undergo an oral examination.

6. MSLT with Distinction

The degree may be awarded with Distinction. In recommending a candidate for admission to the degree and in recommending Distinction the combined results of the thesis and CMDS 605 will be taken into account. The thesis shall be weighted as contributing 87% toward the grade average. Note: The award of Distinction requires a grade point average of 7.0 or greater.

Schedule to the Regulations for the Degree of Master of Speech and Language Therapy

Students are required to take:

CMDS 605 Advanced Clinical Practicum, Supervision, and Administration (0.125 EFTS)

CMDS 695 MSLT Thesis* (0.875 EFTS)

Note: Part-time enrolment in the Thesis (0.65 EFTS) is available on approval.

**Thesis must be completed within 12 months (full-time) and may be started in either the summer at the end of Year 1, or the first semester of Year 2, finishing in either the second semester of Year 2 or the summer of Year 2, respectively.*

Postgraduate Diploma in Antarctic Studies (PGDipAntaStud)

See also General Course and Examination Regulations.

1. Qualifications Required to Enrol in the Diploma

Every candidate for the Postgraduate Diploma in Antarctic Studies, before enrolling for the diploma, shall have:

(a) either
   i. qualified for a degree in a New Zealand University which is of relevance to the proposed course of study; or
   ii. presented evidence of ability for advanced level academic study; or
   iii. been admitted ad eundem statum to enrol for the Postgraduate Diploma in Antarctic Studies.

(b) been approved as a candidate by the Dean of Science.

2. Award of the Diploma with Distinction or Merit

The Postgraduate Diploma in Antarctic Studies may be awarded with Distinction or Merit.

Note: The award of Distinction indicates a grade average in the range A+ to A-; the award of Merit indicates a grade average of B+.

3. Structure of the Course

(a) All students admitted to the Postgraduate Diploma in Antarctic Studies will complete a coherent programme of study approved by the Chair of the Board of Studies: Antarctic Studies.

(b) The requirements for the Postgraduate Diploma in Antarctic Studies shall be ANTA 401 and ANTA 402 and other 400-level courses listed in the University of Canterbury Calendar and other university Calendars relevant to a coherent programme of study for each student that is approved by the Chair of the Board of Studies: Antarctic Studies. The total course weight for the Postgraduate Diploma in Antarctic Studies will be at least 1.00 EFTS.

(c) At the discretion of the Board, an approved course of study may include up to a total of 0.5 EFTS in 400-level courses or higher from another New Zealand or overseas institution.

(d) Candidates must satisfy the Chair of the Board of Studies: Antarctic Studies, that they have the necessary prerequisite knowledge to undertake the proposed courses from the Schedule.

(e) Candidates who have completed the Graduate Certificate in Antarctic Studies with Distinction will be exempt from ANTA 401.

4. Full-time/Part-time Enrolment

A candidate may be enrolled for full-time or part-time study. A part-time candidate is one who, because of employment, health, family or other reasons, is unable to devote his or her full-time to study. Part-time enrolment requires the approval of the Dean of Science.

5. Duration of the Course

(a) A full-time candidate shall normally follow a course of study for not less than one year and not more than two years of study. Extension requires the approval of the Dean of Science.

(b) A part-time candidate shall be required to follow a programme of study with time limits determined by the Dean of Science on the recommendation of the Chair of the Board of Studies: Antarctic Studies. Normally, the maximum period for part-time study is four years.

6. Repeating of Courses

(a) A candidate who fails any of the courses offered will require the permission of the Dean of Science and approval of the Chair of the Board of Studies: Antarctic Studies, to repeat those failed courses or offer any other course in its place.

(b) A candidate who fails any courses offered and is not successful under Regulation 6(a) shall not be awarded the Postgraduate Diploma in Antarctic Studies, but will be awarded a Certificate of Proficiency for each course passed at the University of Canterbury.

7. Transfer from Postgraduate Diploma in Antarctic Studies to Master of Antarctic Studies

If the courses passed for the Postgraduate Diploma in Antarctic Studies satisfy the requirements for Part I of the Master of Antarctic Studies and if the candidate meets the standard required by the Board of Studies: Antarctic Studies (normally a B grade average or better) then, with the approval of the Dean of Science, a candidate may elect:

(a) to have the courses transferred to the degree of Master of Antarctic Studies in lieu of being awarded the Diploma; or

(b) to enter the degree of Master of Antarctic Studies under Master's Regulation 2(a)(i).

Schedule to the Regulation for the Postgraduate Diploma in Antarctic Studies

ANTA 401 Antarctic Global Connection, compulsory (0.3750 EFTS)

ANTA 402 Antarctic Legal System, compulsory (0.1250 EFTS)

Other 400-level courses relevant to a coherent programme of study. A total course weighting of at least 1.0 EFTS must be completed

Note: Courses other than those on the above Schedule will be approved by the Board of Studies: Antarctic Studies, for inclusion in a candidate's course of study.

Postgraduate Diploma in Clinical Psychology (PGDipClinPsyc)

See also General Course and Examination Regulations.

Candidates must also consult the Postgraduate Diploma in Clinical Psychology Handbook for admission criteria and information on planning your prgramme of study.

1. Qualifications Required to Enrol in the Diploma

Every candidate for the Postgraduate Diploma in Clinical Psychology shall have:

(a) been credited with PSYC 335 (or an equivalent course) and PSYC 641, PSYC 642, PSYC 643 (see Note 1 below), PSYC 651, PSYC 653, PSYC 654, and a research methods course (or equivalent); and

(b) either:

i. fulfilled the requirements for the degree of Master of Arts in Psychology, or Master of Science in Psychology (see Note 2 below), or

ii. fulfilled the requirements for the degree of PhD in Psychology (see Note 2 below), or

iii. fulfilled the requirements for the degree of BA(Hons) or BSc(Hons) in Psychology (see Note 2 below), and be enrolled in a PhD in Psychology, and be making satisfactory progress in studies for the PhD, and have permission of the Director of Clinical Training, Head of Department and the Dean of Postgraduate Studies to enrol.

Normally the candidate will have been enrolled for the equivalent of two years part-time for the PhD concurrently with PSYC 641, PSYC 642, PSYC 643, PSYC 651, PSYC 653 and PSYC 654 before enrolment in the diploma is approved (see Note 3 below).

Notes:

1. *Application for admission to PSYC 641, PSYC 642, and PSYC 643 must be made by 30 September in the previous year.*
2. *Students should consult the clinical handbook for admission criteria and information on recommended courses of study at both the undergraduate and the 400-level that precede completion of Masters or PhD. The Director of Clinical Training and the Head of Department will determine whether the candidate has completed an appropriate set of 300 and 400-level courses (which if taken at Canterbury would be part of BSc(Hons), BA(Hons), Part I MSc, or Part I MA in Psychology).*
3. *Concurrent enrolment in PhD and internship will only be approved if it is expected that the candidate will complete the PhD by the end of the internship training. If approval is not given, then a candidate must demonstrate satisfactory progress on the PhD before concurrent enrolment is approved.*

2. Concurrent Enrolment in the MA/MSc/PhD and Other Prerequisites for the Diploma

With the permission of the Dean of Postgraduate Studies, a candidate can be enrolled part-time in MA Part II/MSc Part II/PhD concurrently with enrolment in 600-level courses which are prerequisites for entry to the diploma.

3. Structure of the Diploma

The diploma consists of:

(a) Practical work certificate: Every candidate must possess a certificate from the Head of Department of Psychology that states he or she has spent either (i) one year full-time or (ii) two years part-time in practical work in an institution or institutions approved by the Head of Department.

(b) Course requirement: Either PSYC 500 full-time one year, or PSYC 502 part-time two years depending on whether the practical work as outlined in (a) above is completed on a full-time basis (see Note, below).

(c) Examination requirement: Every candidate must pass an oral and practical examination in Clinical Psychology following completion of (a) and (b).

Note: Part-time enrolment requires the approval of the Director of Clinical Training, Head of Department and the Dean of Postgraduate Studies.

4. Application to Sit Examination

A candidate shall give notice in writing of intention to sit the examination. He or she must submit, together with the letter of application, representative clinical reports of cases which he or she has studied since enrolment for the diploma. Examinations will be held by the University at convenient intervals. Any candidate enrolled under

Regulation 1(b)(iii) above must have submitted her/his PhD thesis for examination before applying to sit the diploma examination, and he or she must qualify for the award of PhD before being awarded the diploma. A candidate may apply to sit the examination a maximum of three times over a five year period following initial enrolment in PSYC 500 or PSYC 502.

5. Award of Diploma with Distinction

The diploma may be awarded with distinction.

Postgraduate Diploma in Engineering Geology (PGDipEngGeol)

See also General Course and Examination Regulations.

1. Qualifications Required to Enrol in the Diploma

Every candidate for the Postgraduate Diploma in Engineering Geology shall have:

(a) either:

i. qualified for the award of the Degree of Bachelor of Science in New Zealand, majoring in Geology or Earth Sciences; or

ii. qualified for the award for the Degree of Bachelor of Engineering in New Zealand, majoring in Civil Engineering (see Notes, below); or

iii. been admitted ad eundem statum with graduate status with suitable preliminary qualification to the University of Canterbury (see Notes, below); and

(b) have been approved as a candidate by the Dean of Science.

Notes:

1. *Relevance of undergraduate studies to Engineering Geology and standard of achievement are the main criteria for approval. Canterbury students who qualify for entry under Regulation 1(a)(i) will normally be required to have passed GEOL 351 and GEOL 352, and 56 other points in GEOL 300-level courses with a grade average that meets the approval of the Head of Department (the normal requirement is at least a B-grade average). In addition, 18 points of MATH 100-level courses are required. This may be waived by the Head of Department if the student can demonstrate an existing suitably high level of ability in Mathematics.*
2. *Candidates seeking admission may be required to pass a qualifying programme prior to commencing the Postgraduate Diploma in Engineering Geology or students may be required to undertake studies concurrently.*
3. *A relevant tertiary qualification plus work experience may be deemed appropriate for entry to the Diploma.*

2. Programme of Study

The programme of study consists of ENGE 471, ENGE 472, ENGE 485, ENGE 486, ENGE 495, at least one course chosen from GEOL 473-489 and at least one course chosen from ENGE 476-482 (as for Engineering Geology BSc(Hons)), with the approval of the Head of the Department of Geological Sciences.

If the candidate is enrolled as a full-time student, the courses must be passed in one year. Part-time enrolment requires the approval of the Dean of Science, and a part-time student must follow a programme of study within time limits determined by the Dean of Science following recommendations of the Head of Department.

Notes:

1. *With the approval of the Head of the Department of Geological Sciences, one of the courses ENGE 471-486 may be replaced by one other ENGE course.*
2. *With the approval of the Head of the Department of Geological Sciences, up to two courses from GEOL 473-489 may replace up to two of the optional courses, or one full year course from another subject may replace two of the optional courses.*
3. *The time limit for a candidate studying part-time shall normally be two years.*

3. Repeating of Courses

(a) A candidate who fails any of the courses, or who otherwise does not attain a standard satisfactory to the Dean of Science, shall not be permitted to repeat any of those courses, or offer any other course in their place.

(b) In the case of a candidate who fails no more than 0.25 EFTS of the diploma programme, the Dean of Science, on the advice of the Head of Department, may recommend a pass in the diploma as a whole, provided the candidate has achieved a grade average of at least B- in the diploma programme as a whole, including any failed courses.

(c) A candidate who fails more than 0.25 EFTS of the diploma programme, or who failed no more than 0.25 EFTS but was not offered a pass in the diploma as a whole under Regulation 3(b), will be awarded a Certificate of Proficiency for each course passed.

(d) Notwithstanding 3(a), 3(b) and 3(c), a candidate who qualifies for an aegrotat award in some or all of his or her courses (see General Course and Examination Regulation H) may elect: either:

   i. to accept for the courses affected the grades recommended by the examiners under that Regulation; or
   ii. to present all or some of those courses once at a subsequent examination; and his or her eligibility for Distinction shall not be affected.

4. Award of Diploma with Distinction or Merit

The Postgraduate Diploma in Engineering Geology may be awarded with Distinction or Merit.

Note: The award of Distinction indicates a grade average in the range A- to A+; the award of merit indicates a grade average of B+.

5. Transfer from PGDipEngGeol to MSc Part II

If the courses passed for the Diploma also satisfy the requirements for Part I of the MSc, and if the courses have been passed with an average grade of at least B+, then, subject to the Admission Regulations and with the approval of the Dean of Science, a candidate may elect either:

i. to have the courses transferred to the Degree of Master of Science in lieu of being awarded the Diploma; or

ii. to enter for the Degree of Master of Science under Regulation 2(a)(v) if the Diploma has been awarded.

6. Award of PGDipEngGeol instead of MSc Part I

A candidate who has successfully completed Part I of the Degree of Master of Science in Engineering Geology may with the approval of the Head of Department have this part of the degree programme credited towards a Postgraduate Diploma in Engineering Geology instead of the Degree of Master of Science.

Postgraduate Diploma in Health Sciences (PGDipHealSc)

See also General Course and Examination Regulations.

1. Award of the Diploma With or Without an Endorsed Option

(a) The Postgraduate Diploma in Health Sciences may be awarded with or without an endorsed option. The endorsed options are in the following areas of specialisation:
   i. Environment and Health
   ii. Early Intervention
   iii. Health Behaviour Change
   iv. Health Information Management

   The programme of study for an endorsed option must conform to the requirements for that option as specified in the Schedule to these regulations.

   Courses that may be included in a programme of study for the Postgraduate Diploma in Health Sciences without an endorsed option are those listed in the Schedule to these Regulations.

(b) The Postgraduate Diploma in Health Sciences may be awarded with Distinction or Merit.

Note: The award of Distinction indicates a grade average in the range A+ to A-; the award of Merit indicates a grade average on B+.

2. Qualifications Required to Enrol in the Diploma

Every candidate for the Postgraduate Diploma in Health Sciences, before enrolling for the diploma, shall have:

(a) i. qualified for a degree in a New Zealand University which is of relevance to the health sciences and the proposed course of study; or
   ii. an appropriate health or allied professional qualification requiring at least three years full-time tertiary study at an appropriate level; or
   iii. successfully completed a qualifying course prescribed by the Joint Board of Studies: Health; and
   iv. presented evidence of ability for advanced level academic study; or
   v. been admitted ad eundem statum to enrol for the Postgraduate Diploma in Health Sciences.

(b) Every candidate for the Postgraduate Diploma in Health Sciences shall have been approved as a candidate by the Dean of Science.

3. Structure of the Degree

(a) All students admitted to the Postgraduate Diploma in Health Sciences will complete a coherent programme of study approved by the Joint Board of Studies: Health.

(b) The requirements for the Postgraduate Diploma in Health Sciences shall be HLTH 401 and other courses listed in the Schedule to these regulations, or courses specified for the endorsed options. The total course weight for the Postgraduate Diploma in Health Sciences will be at least 1.0.

(c) At the discretion of the Board, an approved course of study may include up to a total of 0.5 EFTS in 400-level courses or higher from another New Zealand or overseas institution.

(d) Candidates must satisfy the Chair of the Joint Board of Studies: Health, that they have the necessary prerequisite knowledge to undertake the proposed courses from the Schedule.

Note: Enrolment in courses requiring community or clinical placements will be limited to placements approved by the Joint Board of Studies: Health.

4. Full-time/Part-time Enrolment

A candidate may be enrolled for the Postgraduate Diploma in Health Sciences either on a full-time or part-time basis. A part-time candidate is one who, because of employment, health, family or other reasons, is unable to devote his or her full-time to study. Part-time enrolment requires the approval of the Dean of Science.

5. Duration of the Course

(a) A full-time candidate shall normally follow a course of study for not less than one year and not more than two years of study. Extension requires the approval of the Dean of Science.

(b) A part-time candidate shall be required to follow a programme of study with time limits determined by the Dean of Science on the recommendation of the Chair of the Joint Board of Studies: Health. Normally the maximum period for part-time study is four years.

6. Repeating of Courses

(a) A candidate who fails any of the courses offered will require the permission of the Dean of Science and approval of the Chair of the Joint Board of Studies: Health, to repeat those failed courses or offer any other course in its place.

(b) A candidate who fails any courses offered and is not successful under Regulation 6(a) shall not be awarded the Postgraduate Diploma in Health Sciences, but will be awarded a Certificate of Proficiency for each course passed at the University of Canterbury.

7. Transfer from PGDipHealSc to MHealSc

If the courses passed for the Postgraduate Diploma in Health Sciences satisfy the requirements for Part I of the Degree of Master of Health Sciences, and if the candidate meets the standard required by the Joint Board of Studies: Health (normally a B grade average or higher) then, with the approval of the Dean of Science, a candidate may elect:

i. to have the courses transferred to the Degree of Master of Health Sciences in lieu of being awarded the Diploma; or

ii. to enter the Degree of Master of Health Sciences under Regulation 2(a)(i).

Schedule to the Regulations for the Postgraduate Diploma in Health Sciences

Course Code	Course Title	EFTS	07	P/C/R/RP/EQ
HLTH 401	Health and Health Care in New Zealand	0.25	S1	P: Entry with approval of the Head of Department. R: HLTH 601 EQ: HLTH 601
HLTH 402	Health Information Management	0.25	S2	P: Entry with approval of the Head of Department. R: HLTH 602 EQ: HLTH 602
HLTH 405	Special Topic: Independent Study	0.25	W S1 S2	P: Subject to approval of the Director, Health Sciences Centre R: HLTH 605 EQ: HLTH 605
HLTH 406	Special Topic	0.25	S2	P: Subject to approval of the Director, Health Sciences Centre R: HLTH 606 EQ: HLTH 606
HLTH 407	Special Topic	0.25	W S1 S2	P: Subject to approval of the Director, Health Sciences Centre R: HLTH 607 EQ: HLTH 607
HLTH 408	Special Topic	0.125	W S1 S2	P: Entry with approval of the Head of Department. R: HLTH 608 EQ: HLTH 608
HLTH 409	Special Topic: Health and Pacific Cultures	0.25	S2	P: Entry with approval of the Head of Department. R: HLTH 609 EQ: HLTH 609
HLTH 410	Pacific Health Leadership	0.25	W	P: Subject to approval of the Head of Department.
HLTH 420	Early Intervention Theory	0.25	W	P: Entry with approval of the Head of Department. R: HLTH 620 EQ: HLTH 620
HLTH 421	Early Intervention Practice	0.25	W S1 S2	P: Entry with approval of the Head of Department, HLTH 420 or HLTH620 R: HLTH 621 EQ: HLTH 621
HLTH 422	Early Intervention Advanced Practice	0.25	W S1 S2	P: Entry with approval of the Head of Department, HLTH 421 or HLTH 621 R: HLTH 622 EQ: HLTH 622
HLTH 430	Motivating Behaviour Change I	0.25	S1	P: Entry with approval of the Head of Department. R: HLTH 630 EQ: HLTH 630

HLTH 431	Motivating Behaviour Change II	0.25	S2	P: Entry with approval of the Head of Department, HLTH 430 or HLTH 630 R: HLTH 631 EQ: HLTH 631
HLTH 440	Family Nursing Assessment	0.25	S1	P: Entry with approval of the Head of Department.
HLTH 441	Family Nursing in Complex Situations	0.25	S2	P: HLTH 440. Entry with the approval of the Head of Department.

Courses may also be selected from within the following subjects, with the approval of the Director, Health Sciences Centre: Applied Psychology, Biological Sciences, Biochemistry, Communication Disorders, Education, Engineering – Chemical and Process, Engineering – Civil, Engineering – Electrical and Electronic, Engineering – Natural Resources, Environmental Sciences, Geography, History, Law, Maori, Mathematics and Statistics, Pacific Studies, Philosophy, Political Science, Psychology, Public Health, Social Work, Sociology.

Notes:

1. *A list of appropriate courses in each subject is available from the Heath Sciences Centre. Courses from subjects other than those listed above may also be approved by the Joint Board of Studies: Health.*
2. *Courses available through the University of Otago's Christchurch School of Medicine and Health Sciences or through other tertiary education institutions, may be approved for credit toward the degree, and may be required for specific endorsed options (see endorsement requirements).*
3. *Special Topics in Health Sciences have been included to allow development of new courses by academic/adjunct staff in areas of special interest and expertise.*
4. *Not all courses may be offered. Please check with the appropriate Department/School.*

Endorsement Requirements for the Postgraduate Diploma in Health Sciences

Endorsed Option	Papers Required
Environment and Health	HLTH 401; PUBH 703 or GEOG 401; and other approved courses to at least 1.0 EFTS.
Early Intervention	HLTH 401; HLTH 420; HLTH 421; and one or more other approved courses to total at least 1.0 EFTS.
Health Behaviour Change	HLTH 401; HLTH 430; HLTH 431; and one more approved courses to at least 1.0 EFTS.
Health Management Information	HLTH 401; HLTH 402; PUBH 706 or GEOG 401; and one or more approved courses to at least 1.0 EFTS.

Note: PUBH 703: Health and Environmental and PUBH 706: Health Systems are offered through the University of Otago's Christchurch School of Medicine and Health Sciences.

Postgraduate Diploma in Industrial and Organisational Psychology (PGDipIndOrgPsyc)

See also General Course and Examination Regulations.

1. Qualifications Required to Enrol in the Diploma

Every candidate for the Diploma in Industrial and Organisational Psychology, before enrolling for a course of study for the diploma, shall have:

(a) qualified for the Degree of Bachelor of Arts with Honours in Psychology or Master of Arts, or Bachelor of Science with Honours in Psychology or Master of Science; and

(b) completed such work that is judged by the Head of Department, Psychology, to be equivalent to the University of Canterbury degree of Master of Science in Applied Psychology.

(c) been credited with the qualifying courses, PSYC 631 Advanced Personnel Psychology and PSYC 632 Advanced Organizational Psychology.

2. Diploma Requirements

To qualify for the diploma a candidate must satisfy the following conditions:

(a) present a certificate, from an organisation approved by the Head of Department of Psychology, stating that the candidate has been employed full-time for at least one year either as a psychologist or in a position in which the practice of psychology is a significant component;
(b) submit for assessment six reports of cases, or projects, approved by the Head of Department of Psychology, and completed since enrolling for the diploma;
(c) complete such additional readings and exercises as the Head of Department may require;
(d) pass an oral and practical examination.

3. Application to Sit Examination

A candidate shall give notice in writing by 1 September in any year, of their intention to sit the examination.

4. Timing of Examinations

Examinations will be held by the University at regular intervals.

5. Award of Diploma with Distinction or Merit

The Postgraduate Diploma in Industrial and Organisation Psychology may be awarded with Distinction or Merit.

(Subject to NZVCC CUAP approval due December 2006.)

Note: The award of Distinction indicates a grade average in the range of A- to A+; the award of merit indicated a grade average of B+.

Schedule to the Regulations for the Postgraduate Diploma in Industrial and Organisational Psychology

PSYC 501 Diploma in Industrial and Organisational Psychology 1.0000 EFTS

Postgraduate Diploma in Science (PGDipSc)

See also General Course and Examination Regulations.

1. Subjects in Which the Diploma May be Awarded

The subjects for the Postgraduate Diploma in Science are: Animal Physiology, Astronomy, Biochemistry, Botany, Cellular and Molecular Biology, Chemistry, Computer Science, Ecology, Environmental Science, Geography, Geology, Hazard and Disaster Management, History and Philosophy of Science, Management Science, Mathematics, Medical Physics, Microbiology, Philosophy, Physics, Plant Biotechnology, Psychology, Statistics, Zoology.

2. Qualifications Required to Enrol in the Diploma

(a) Every candidate for the Postgraduate Diploma in Science shall, before enrolling for the Diploma, fulfil one of the following conditions: either
    i. qualify for the Degree of Bachelor of Science; or
    ii. qualify for a Bachelor's degree and if necessary passed a qualifying programme in such courses from the schedule to the regulations for the Degree of Bachelor of Science as may be required by the Dean of Postgraduate Studies; or
    iii. be admitted ad eundem statum as entitled to enrol for the Postgraduate Diploma in Science.
(b) A candidate shall have met the prerequisites prescribed in the Schedule to these Regulations.
(c) Every candidate for the diploma shall have been approved as a candidate by the Dean of Science.

3. Structure of the Diploma

The programme for the Diploma shall consist of courses as laid down in the Prescriptions for the subject, to be passed in one year unless in a particular case the Dean of Postgraduate Studies resolves otherwise.

4. Repeating of Courses

(a) A candidate who fails any of the courses, or who otherwise does not attain a standard satisfactory to the Dean of Postgraduate Studies shall not be permitted to repeat any of those courses, or offer any other course in their place.
(b) In the case of a candidate who fails no more than 0.25 EFTS of the diploma programme, the Dean of Science, on the advice of the Head of Department/School concerned, may recommend a pass in the diploma as a whole, provided the

candidate has achieved a grade average of at least B- in the diploma programme as a whole, including any failed courses.

(c) A candidate who fails more than 0.25 EFTS of the diploma programme, or who failed no more than 0.25 EFTS but was not offered a pass in the diploma as a whole under Regulation 4(b), will be awarded a Certificate of Proficiency for each course passed.

(d) Notwithstanding 4(a), 4(b) and 4(c), a candidate who qualifies for an aegrotat award, in some or all of the courses (see General Course and Examination Regulation H) may elect either:

i. to accept for the courses affected the grades recommended by the examiners under that Regulation;

ii. to present all or some of those courses once at a subsequent examination.

5. Transfer from PGDipSc to MSc

If the courses passed for the Diploma also satisfy the requirements for Part I of the MSc, and if the candidate meets the standard required by the department for entry to MSc Part II, then, subject to the Admission Regulations and with the approval of the Dean of Science, a candidate may elect either:

i. to have the courses transferred to the Degree of Master of Science in lieu of being awarded the Diploma;

ii. to enter for the Degree of Master of Science under Regulation 2(a)(iv) if the Diploma has been awarded.

6. Award of PGDipSc Instead of MSc Part I

A candidate who has successfully completed Part I of the Degree of Master of Science may have this part of the degree programme credited towards a Postgraduate Diploma in Science instead of the Degree of Master of Science.

7. Award of PGDipSc after Attempting MSc Part I

Where a candidate for the Degree of Master of Science does not attain a satisfactory standard in the Part I examination, but does fulfil the requirements for the Postgraduate Diploma in Science, the Dean of Science, on the advice of the examiners, may recommend the award of the Postgraduate Diploma in Science.

8. Award of PGDipSc With Distinction or Merit

The Postgraduate Diploma in Science may be awarded with Distinction or Merit.

Note: The award of Distinction indicates a grade average in the range A- to A+; the award of merit indicates a grade average of B+.

Schedule to the Regulations for the Postgraduate Diploma in Science

Astronomy

ASTR 424 and five courses chosen from: ASTR 421-423, 425-430, and up to two courses from PHYS 400-level courses. Two courses may be replaced by ASTR 480, but no student may take both ASTR 430 and ASTR 480. Courses are subject to approval by the Head of the Department of Physics and Astronomy.

P: 56 points in ASTR 300 or PHYS 300-level courses approved by the Head of Department of Physics and Astronomy.

Biochemistry

Four courses as for Biochemistry Honours 400-level, selected with the approval of the Course Co-ordinator, from BCHM 401 (BIOL 436), BCHM 402 (CHEM 465), BCHM 403 (BIOL 435), BCHM 405 (BIOL 434), BCHM 406 (BIOL 430); the balance is to be selected from BCHM 407-409, BIOL 431-432, BIOL 437, BIOL 450-451, BIOL 491, CHEM 462, CHEM 467.

P: 84 points in 300-level courses: 70 points from BCHM 301 (BIOL 331/PAMS 308), BCHM 302 (CHEM 325) and BCHM 381; and additional points normally from CHEM 322, 324, 362, 381 or BIOL 313 (PAMS 303), BIOL 352 (PAMS 310), BIOL 330 (PAMS/ZOOL 309), BIOL 353 and 354 (BIOL 350/ZOOL 301) or BIOL 351 (ZOOL 306).

Biotechnology

BIOL 491, plus three others selected from BIOL 401-402, BIOL 404-409, BIOL 430-431, BIOL 434-435, BIOL 453, BIOL 492-493. With the approval of the Head of the School of Biological Sciences, one course may be chosen from other 400-level BIOL or BCHM courses.

Note: Not all courses will be offered in any one year.

P: (1) BIOL 252; and
(2) BIOL 352; and
(3) one course selected from BIOL 313, BIOL 330, BIOL 331.

Note: Students will normally be expected to take BIOL 309 (BIOL 301).

Cellular and Molecular Biology

Four courses selected from CEMB 400-level requirements, selected with the approval of the Course Co-ordinator, School of Biological Sciences, from BIOL 430-432, BIOL 434, BIOL 437, BIOL 491. An additional course may be chosen with the approval of the Course Co-ordinator from CHEM 461-471; and/or BIOL 435 (BCHM 403), 453, 474, 477, 478, 481, or 493; and/or BIOL 433 (BCHM 404), BIOL 450-452, BIOL 470-473, BIOL 474-475, or BIOL 490. Note: In all Cellular and Molecular Biology courses (CEMB), a satisfactory performance is required in both the year's work and the written papers.

P: 56 points at 300-level in BIOL.

Chemistry

Four courses chosen from CHEM 461-474, plus a project report on practical work.

P: 56 points at 300-level in the same subject.

Computer Science

Eight courses chosen from COSC 401-439. Not all half-courses may be available in any one year.

P: 56 points at 300-level in the same subject.

Computer Security and Forensics

Eight courses, including COSC 407, 419, 424, 425, 429, 430, and two courses from COSC 401–439, MATH 409, ENCI 601 or as approved by the Head of Department.

With permission from the Head of Department, two of the core courses may be substituted with other 400-level computer science papers.

Ecology

Four courses from those listed for Ecology BSc(Hons), selected with the approval of the Head of the School of Biological Sciences, from FORE 616, BIOL 421-422, BIOL 453, BIOL 470-479, BIOL 481, BIOL 490.

P: 56 points at 300-level in BIOL.

Environmental Science

It is desirable that an appropriate course of data analysis and computing should have been included in the undergraduate degree.

The course of study is ENVR 410 (Concepts and Principles in Environmental Science), ENVR 411 (Case Studies in Environmental Science), and courses totalling not less than 0.75 course weighting selected from relevant courses offered by the Environmental Science home departments/schools of Forestry (FORE), Geography (GEOG), Geological Sciences (GEOL and ENGE), and Biological Sciences (BIOL), and from relevant courses, as approved by the Coordinator, that are offered by Antarctic Studies (ANTA), Chemistry (CHEM), Chemical and Process Engineering (ENCH), Civil Engineering (ENCI) and Mathematics and Statistics (MATH and STAT).

The selection should form a coherent thematic programme, and must be discussed with the Co-ordinator. Note that normally all individual course prerequisites must be satisfied.

P: 84 points in appropriate 300-level courses in Science, Engineering, and Forestry approved by the Co-ordinator.

Note: Normally all pre-requisites must be satisfied.

Geography

Four courses chosen from GEOG 401-420, with approval of the Head of Department. Enrolment in GEOG 420 Research Project is recommended.

P: Students will normally be expected either to have passed 84 points in 300-level courses approved by the Head of Department, including GEOG 309 and at least 28 other points in 300-level Geography courses, or to have completed 112 points at 300-level, of which 56 are in Geography and 56 are in subjects approved by the Head of Department.

Not all courses will be offered in any one year.

Geology

GEOL 471 and seven courses from GEOL 473-489 with the approval of the Head of the Department of Geological Sciences.

Notes:

1. *With the approval of the Head of the Department of Geological Sciences, up to three courses from ENGE 476-482 (Engineering Geology) may replace up to three of the optional courses, or one full year course from another subject may replace two of the optional courses.*
2. *Practical and fieldwork may be required as part of any GEOL 471-489 courses.*
3. *Not all courses may be offered in any one year.*

P: GEOL 351 and GEOL 352 (or equivalent fieldwork), and 56 points from other GEOL 300-level courses, passed with a grade average that meets the approval of the Head of Department (the normal requirement is at least a B grade average).

Hazard and Disaster Management

The programme of study consists of HAZM 401, HAZM 403, ENCI 601, ENCI 462 (or equivalent), and four other courses chosen to form a coherent programme in the area of hazard and disaster management with the approval of the Programme Director, Department of Geological Sciences. *Note: Not all courses may be offered in any one year.*

P: (1) 18 points of 100-level STAT courses or equivalent*; and
(2) 84 points from 300-level courses in the Schedule to the BSc Regulations, these prerequisite courses to have been passed with a grade average that meets the approval of the Programme Director (the normal requirement is at least a B grade average).

History and Philosophy of Science

Four courses from HAPS 401-433 and HAPS 480 (as for MSc), to be approved by the Course Co-ordinator(s) of HPS Studies, in consultation with the Heads of Department/School in which the courses selected are taught.

P: 84 points in 300-level courses of the BSc degree approved by the Co-ordinator(s) of HPS Studies.

Management Science

Five courses chosen from MSCI 451-469, or from pairs of courses from MSCI 310, 311, 312, 315, 316, 320, 321, 322 and 323, and from approved postgraduate or 300-level courses in Computer Science, Economics, Mathematics, and Statistics, as approved by the Head of Department. At least 3 of the 5 chosen courses shall be selected from MSCI 451-469 or from pairs of courses from MSCI 310, 311, 312, 315, 316, 320, 321, 322, and 323. No more than two of the 5 chosen shall be at 300-level.

Note: 300-level courses are chosen in pairs because each of these courses is effectively one-half of a course in terms of the 5 courses required.

P: (1) 56 points from MSCI 310, 311, 312, 315, 316 and 321; or
(2) 28 points from MSCI 310, 311, 315, and 316; and at least two of MATH 352, MATH 353, STAT 316, STAT 317 or equivalent.

Mathematics

MATH 449 and eight courses chosen from MATH 401-490 and STAT 401-490 (other than MATH 449 or STAT 449). One of the eight courses must be MATH 443 if the student has not been credited with MATH 343 previously. Normally at least six courses will be chosen from the MATH course list.

P: 44 points from MATH 210-299; and 56 points from MATH 310-399; and an additional 28 points from MATH 310-399 or STAT 310-399 or other approved courses.

Medical Physics

Six courses chosen from MDPH 401-410. One or two of these courses may be replaced by appropriate courses from another subject, the choice of courses subject to approval by the Course Co-ordinator.

P: 56 points at 300-level approved by the Head of Department of Physics and Astronomy.

Microbiology

Four courses : A minimum of three courses from BIOL 434–493; the fourth course may be chosen, with the approval of the Head of the School of Biological Sciences, from BIOL 401–409, 421, 453, 474, 477, 478.

P: 56 points at 300-level in BIOL.

Philosophy

Eight courses from PHIL 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 463, 464, 467, 468, 469, 470, 471, 472, 474.

P: 56 points at 300-level in the same subject.

Physics

Six courses chosen from PHYS 401-440. One or two of these courses may be replaced by PHYS 441-460 courses or appropriate courses from another subject. Two courses may be replaced by the Research Project PHYS 480. Courses are subject to the approval of the Head of Department.

P: 56 points at 300-level approved by the Head of the Department of Physics and Astronomy.

Plant Biology

Four courses to be selected, with the approval of the Head of the School of Biology Sciences, from: BIOL 401-409, BIOL 421, BIOL 430-432, BIOL 434-436, BIOL 453, BIOL 471-474, BIOL 476, BIOL 478, BIOL 490-493.

P: 84 points in 300-level courses.

Note: Students will normally be expected to take BIOL 309 (BIOL 301).

Psychology

Four full courses (or their half-course equivalents) selected with the approval of the Head of Department from PSYC 401-470. One PSYC 300-level course may be substituted for a PSYC 400-level full course with the approval of the HOD.

P: Six courses (not fewer than 150 points) from PSYC 200- and PSYC 300-level courses, including:

(2) PSYC 206 and
(3) one from PSYC 207-211, and
(4) PSYC 344, and
(5) one from PSYC 331-335, 343 and
(6) one further PSYC 300-level course and
(7) one further PSYC 200- or PSYC 300-level course.

A B grade average in three PSYC 300-level courses is normally required.

Statistics

Part I: Eight courses chosen from STAT 401-490 and MATH 401-490 (other than STAT 449 or MATH 449). One of the eight courses must be STAT 464 if the student has not been credited with STAT 214 previously. Normally at least six courses will be chosen from the STAT course list.

P: Part I: MATH 109 or MATH 199; 33 points from STAT 210-299; 56 points from STAT 310-399; and an additional 28 points from MATH 310-399 or STAT 310-399 or other approved courses.

Zoology

Four courses from BIOL 422, 430-432, BIOL 433 (BCHM 404), BIOL 450-452, 470-476, 490, selected with the approval of the Head of the School of Biological Sciences.

P: 56 points at 300-level in BIOL.