Faculty of Science

The Degree of Bachelor of Science (BSc)

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 255 points of the 360 must be from the Schedule to the Regulations for the Bachelor of Science.
(c) The remaining 105 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 225 points must be for courses above 100-level.
(e) at least 90 points must be for courses at 300-level.
(f) at least 60 points of that 90 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. Subject Majors and Endorsements of the Degree

(a) Subject Majors: the degree of Bachelor of Science may be awarded in the following subjects: Astronomy; Biochemistry; Biological Sciences; Chemistry; Computer Science; Economics; Finance; Geography; Geology; Linguistics; Management Science; Mathematics; Philosophy; Physics; Psychology; Statistics.
(b) In additional to meeting the requirements of a subject major, the degree of Bachelor of Science may be endorsed in the following subject/s:
    i. Biosecurity
    ii. Biotechnology
    iii. Ecology
    iv. Environmental Science.

5. Direct Entry into 200-level Courses

Subject to the approval of the Dean of Science, a student who has achieved a su□cient standard in a subject or subjects in the National Certificate in Educational Achievement (NCEA) or other comparable examin30.21sssd(-Tscabamin(ov)10el 0l)w5-1 Tf8 0sh8(o 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.

6.

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 180 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, 90 must be from 300-level courses and include at least 60 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 Prior Learning to the First Professional Year, complete the 180 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.

8. 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 7 hereof.

9. Restrictions and Prerequisites from Engineering Courses

Candidates for the Degree of Bachelor of Science under Regulations 6, 7 or 8 shall require permission of the Head of the Department of Mathematics and Statistics for enrolment in any Mathematics or Statistics course.

10. 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

13. Transition Rules for Students Enrolled for the Degree of Bachelor of Science prior to 10 December 2010

(a) To qualify for the degree of Bachelor of Science:
   i. a candidate who enrolled for the first time before 10 December 2010 must pass courses having a minimum total value of 357 points;
   ii. at least 254 points must be from the Schedule to the Regulations for the Degree of Bachelor of Science;
   iii.

tics, including at least one of LING 306 or LING 307.

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

Management Science

100-level

Required: MSCI 101; STAT 101 or MSCI 110

Recommended: 15-30 points of 100-level Mathematics; MGMT 100, ECON 104 and ECON 105

Recommended for honours in Operations Research: MATH 102 and MATH 103.

200-level

Required: At least 30 points of 200-level MSCI

Required for honours in Operations Research: (MSCI 201 and MSCI 202) or MSCI 204; MSCI 210 or MSCI 280; MSCI 203 or MSCI 216

Recommended for honours in Operations Research: MATH 201 or MATH 203.

300-level

Required: At least 60 points of 300-level MSCI

Required for honours in Operations Research: MSCI 301 and MSCI 302, and at least 30 points from MSCI 320, MSCI 321, MSCI 323, MSCI 324, MSCI 340, MSCI 370, MSCI 371, MSCI 372, MSCI 373.

Mathematics

100-level

Required: MATH 103, MATH 109 or MATH 199

200-level

Required: 45 points from MATH 201, MATH 202, MATH 203, MATH 220 and MATH 240 (including MATH 201 and at least one of MATH 202 or MATH 203).

[illegible] 210 [illegible] 201[illegible]
[illegible] 211 [illegible] 203.

300-level

Required: 60 points from MATH 301-394.

Required for honours: An additional 30 points from MATH 301-394 or STAT 301-394 or other approved courses.

Recommended for honours: MATH 343

Philosophy

100-level

Recommended: 30 points of 100-level Philosophy (or equivalent). Note: MATH 130 may be counted as Philosophy points towards a BSc in Philosophy.

200-level

Required: At least 45 points of 200-level Philosophy (or equivalent) including PHIL 233. Students may include HAPS 201, HAPS 202, HAPS 203, or HAPS 210. Note: MATH 230 may be counted as Philosophy points towards a BSc in Philosophy.

300-level

Required: At least 60 points of 300-level Philosophy (or equivalent) (not including ARTS 395), including at least one of PHIL 305, PHIL 310, PHIL 311, or PHIL 317. Students may include HAPS 302 or HAPS 310.

Physics

100-level

Strongly recommended: PHYS 101, PHYS 102, MATH 102, MATH 103, and (MATH 170 or COSC 121). PHYS 101 is offered in Semesters 1 and 2 and PHYS 102 is offered in Semester 2 and as a Summer Programme.

200-level

Required: PHYS 204 and PHYS 285; 30 points from PHYS 201–203; and MATH 201 and 15 further points of 200-level MATH.

300-level

Required: PHYS 381; 30 points from PHYS 301–379, ASTR 322; and 15 points selected from PHYS 301–379, ASTR 301–379.

In any Physics or Astronomy course that involves assessed laboratory or tutorial work, satisfactory attendance and performance in such work is required.

Required for postgraduate: Students intending to proceed to BSc(Hons) or MSc should take PHYS 311 and PHYS 312 and two courses from 300-level MATH. Students interested in theoretical or mathematical physics should take PHYS 326. For detailed requirements for Physics and Mathematical Physics, refer to the BSc(Hons), MSc, or PGDipSc entries in the Postgraduate section.

Psychology

100-level

Required: PSYC 105 and PSYC 106.

200-level

Required: PSYC 206, and three 15 point courses from PSYC 207-212.

Note: Students who enrolled prior to 2010 may be permitted to major with one course from PSYC 207-212, in which case they will be required to pass a further 200-level or 300-level course to complete the major.

300-level

Required: At least 75 points of 300-level PSYC.

Note: With the permission of the Head of Department, a student may substitute a 300-level course for one of PSYC 207-212.

Postgraduate degree requirements:

Students wishing to proceed to higher postgraduate degrees in Applied Psychology and Psychology must satisfy the requirements of the BSc degree and have been credited with PSYC 344.

Students intending to apply for the MSc in Applied Psychology must have completed PSYC 336 or an equivalent course and must meet the postgraduate degree requirements above.

Students who wish to become eligible to apply for the Postgraduate Diploma in Clinical Psychology must have completed PSYC 335 or an equivalent course, as well as meet the postgraduate degree requirements above.

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Statistics

100-level

Required: MATH 103, MATH 109 or MATH 199

200-level

Required: 45 points from STAT 201–294

300-level

Required: At least 60 points from STAT 301–394

Required for entry to honours: An additional 30 points from MATH 301–394 or STAT 301–394, or other approved courses.

Schedule B to the Regulations for the Degree of Bachelor of Science

[illegible]

ASTR 112	Astrophysics	15	S1	
ASTR 211	Imaging the Universe	15	S2	P: 30 p

BCHM 212	Chemical Reactivity	15	S1	P: CHEM 112 R: BCHM 205, CHEM 212, CHEM 232, ENCH 241 EQ: CHEM 212
BCHM 221	BIOCHEMISTRY A - Biomolecules and their interactions	15	S1	P: (1) BIOL 111 (2) CHEM 112 or CHEM 115 R: BCHM 201, ENCH 323
BCHM 222	BIOCHEMISTRY B - Metabolism; the reactions of molecules in cells	15	S2	P: BCHM 221 R: BCHM 201, ENCH 323
BCHM 253	Cell Biology I	15	S2	P: BIOL 111 and 15 points of CHEM at 100-level. R: BIOL 253 RP: 30 points of CHEM at 100-level EQ: BIOL 253
BCHM 281	Practical Biochemistry	15	S2	P: CHEM 111 or CHEM 112 or CHEM 114. R: CHEM 281
BCHM 301	Biochemistry 3	30	W	P: (1) Either BCHM 201 or BCHM 221 and BCHM 222; (2) BCHM 202 or BIOL 230 or BIOL 231. R: BIOL 331 EQ: BIOL 331
BCHM 302	Biological Chemistry	30	W	P: Either (1) 22 points from BCHM 205, or BCHM 206, or BCHM 212, or CHEM 212, or CHEM 222, or CHEM 232, or CHEM 242, or CHEM 262, or CHEM 272, or ENCH 241; or (2) BCHM 201 and either BCHM 205 BCHM 212 or CHEM 212 or CHEM 232 or ENCH 241; or (3) BCHM 221 and BCHM 222 and either BCHM 205 or BCHM 212 or CHEM 212 or CHEM 232 or ENCH 241. R: CHEM 325, ENCH 445 EQ: CHEM 325
BCHM 303	Special Topic	15	W	P: Entry subject to approval of the Coordinator, Biochemistry.
BCHM 304	Special Topic	15	W	P: Entry subject to approval of the Coordinator, Biochemistry
BCHM 335	Biochemical and Environmental Toxicology	15 15	S2 S2	P: (1) CHEM 244 or CHEM 211, (2) BIOL 111 R: BCHM 302; CHEM 325 RP: CHEM 112
BCHM 381	Biochemical Techni676 Td(BCHM 381)Tj0 Tw 5.207 0 Td[Biochemi)66(echni676 Td(BCHM 381)Tj0 T03422)6(1)]JT*[R:f CHEM at 100-le			

BIOL 335	Bioinformatics and Genomics	15	S2	

COSC 364	Internet Technology and Engineering	15	S1	P: (1) COSC 264; (2) COSC 261; (3) 30 points of EMTH or 15 points of MATH/STAT (STAT 101 recommended). MATH 101 is not acceptable. R: COSC 331, COSC 327 RP: It is recommended that COSC 362 and COSC 364 be taken together, particularly as preparation for students wishing to proceed to postgraduate study and the postgraduate Diploma in Science: Computer Security and Forensics.
COSC 366	Research Project	15	SU2	P: (1) 44 points of 200-level Computer Science (2) 30 points from Mathematics, Statistics or Engineering Mathematics or 15 points of Math/Stat (MATH 120 recommended) and COSC 222. MATH 101 is not acceptable. (3) approval of Head of Department RP: COSC 110, COSC 208, COSC 225, COSC 226, COSC 324
COSC 367	Computational Intelligence	15	S2	P: COSC 262 R: COSC 329, COSC 230
COSC 368	Humans and Computers	15	S2	P: (1) 45 points of (200-level Computer Science and ENCE 260), (2) 30 points of EMTH or 15 points of MATH/STAT (MATH 120 recommended). MATH 101 is not acceptable. R: COSC 225 RP: From 2011 onwards: COSC 110, COSC 263.
COSC 371	Special Topic	15	NO	P: Subject to approval by the Head of Department. R: COSC 364
COSC 372	Special Topic	15	NO	P: Subject to approval by the Head of Department. R: COSC 367
ENCE 260	Computer Systems	15	S2	P: COSC 121, COSC 122 and 15 points of Mathematics or Statistics or MSCI 110; or subject to the approval of the Dean of Engineering and Forestry R: ENEL 206; both COSC 208/ENCE 208 and COSC 221/ENCE 221
ENCE 360	Operating Systems	15	S2	P: ENCE 260. R: COSC 321 RP: COSC 110, COSC 261, COSC 262.
ENCE 361	Embedded Systems 1	15	S1	P: ENCE 260 R: ENEL 353, ENEL 323, COSC 361, ELEC 361, ENEL 340
SENG 201	Software Engineering I	15	S1	P: (1) COSC 121; (2) COSC 122; (3) 15 points from Mathematics, Statistics, Engineering Mathematics or MSCI 110. MATH 101 is not acceptable. MATH 120/STAT 101 are strongly recommended. R: COSC 263, COSC 324
SENG 301	Software Engineering II	15	S1	P: COSC 263 and (COSC 261 or (ACIS /INFO 203 and ACIS/INFO 213)). R: COSC 324, COSC 314 RP: From 2011 onwards: COSC 110, ENCE 260. Before 2011: COSC 208
SENG 302	Software Engineering Group Project	30	W	P: COSC 263 and (COSC 261 or (ACIS /INFO 203 and ACIS/INFO 213)). R: COSC 325, COSC 314 RP: From 2011 onward: COSC 110, SENG 301, ENCE 260, COSC 368, COSC 265. Before 2011: COSC 208, COSC 225, COSC 226, COSC 324.
SENG 365	Web Computing Architectures	15	S2	P: COSC 265 or (INFO 203 and INFO/ACIS 233). R: COSC 365 RP: From 2011 onwards: COSC 261, SENG 301. Before 2011: COSC 222, COSC 324, COSC 326

Economics

Course Code	Course Title	Pts	2013	P/C/R/RP/EQ
ECON 104	Introduction to Microeconomics	15	S1 S2	R: ECON 199
ECON 105	Introduction to Macroeconomics	15	S1 S2	
ECON 199	Introduction to Microeconomics	15	X	P: Subject to approval of the Head of Department. R: ECON 104
ECON 202	Intermediate Microeconomics with Calculus I	15	S1	P: ECON 104 C: MATH 102 or MATH 199 R: ECON 230 and ECON 231
ECON 203	Intermediate Microeconomics with Calculus II	15	S2	P: ECON 202 R: ECON 230 RP: STAT 101
ECON 206	Intermediate Macroeconomics	15	S2	P: ECON 104 and ECON 105 R: ECON 201
ECON 207	Intermediate Microeconomics I	15	S1	P: ECON 104 R: ECON 202, ECON 203, ECON 230, ECON 231
ECON 208	Intermediate Microeconomics II	15	S2	P: ECON 202 or ECON 207 R: ECON 203, ECON 230, and ECON 231
ECON 212	Economic Statistics	15	NO	P: (1) ECON 104 or ECON 105 (2) 15 points from STAT courses or MSCI 110
ECON 213	Introduction to Econometrics	15	S1	P: (1) ECON 104 or ECON 105 (2) 15 points from STAT. RP: MATH 101 or Year 13 Math with Calculus. Students who have taken MSCI 110 instead of STAT 101 should contact the Department to discuss a waiver.
ECON 222	International Trade	15	S1	P: ECON 104 R: ECON 209
ECON 223	Introduction to Game Theory for Business, Science and Politics	15	S1	P: Any 105 points
ECON 224	Economics and Current Policy Issues	15	S2	P: ECON 104
ECON 225	Environmental Economics	15	S1	P: ECON 104
ECON 321	Mathematical Techniques in Microeconomics	15	S1	P: (1) ECON 230 or ECON 231 or ECON 202 or ECON 207. (2) MATH 108 or MATH 102 or MATH 199; (3) 15 points from STAT courses or ECON 212 R: MATH 201
ECON 322	Game Theory	15	S2	P: (1) ECON 230 or ECON 231 or ECON 202 or ECON 207; (2) MATH 108 or MATH 102 or MATH 199; (3) 15 points from STAT courses or ECON 212 RP: ECON 203 or ECON 208
ECON 323	Time Series Methods	15	S2	P: (1) ECON 213 and ECON 202 or (2) ECON 213 and FINC 205 R: FINC 323, STAT 317 EQ: FINC 323, STAT 317
ECON 324	Econometrics	15	S1	P: (1) ECON 213 or STAT 213; and (2) MATH 102 or MATH 199
ECON 325	Macroeconomic Analysis	15	S2	P: (1) ECON 105; (2) ECON 203 or (ECON 208 and ECON 321) R: ECON 201
ECON 326	Monetary Economics	15	S1	P: (1) ECON 201 or ECON 206; (2) MATH 108 or MATH 102 or MATH 199 RP: ECON 230 or ECON 231 or ECON 202 or ECON 207
ECON 327	Economic Analysis of Law	15	S1	P: ECON 230 or ECON 231 or ECON 202 or ECON 207.
ECON 328	Topics in Law and Economics	15	NO	P: ECON 230 or ECON 231 or ECON 203 or ECON 208.

ECON 329	Industrial Organisation	15	S1	P: ECON 230 or ECON 231 or ECON 202 or ECON 207.
ECON 330	Strategic Behaviour of Firms	15	NO	P: ECON 230 or ECON 231 or ECON 203 or ECON 208.
ECON 331	Financial Economics	15	S2	P: Any two of (ECON 202, ECON 203, FINC 201 or FINC 205). R: FINC 331 RP: MATH 103 EQ: FINC 331
ECON 332	Economics and Psychology	15	S2	P: ECON 202 or ECON 207
ECON 333	Experimental Economics	15	S2	P: ECON 230 or ECON 231 or ECON 202 or ECON 207
ECON 334	Labour Economics	15	NO	P: ECON 230 or ECON 231 or ECON 202 or ECON 207. RP: ECON 203 or ECON 208
ECON 335	Public Economics 1	15	NO	P: ECON 203 or ECON 208 or (ECON 202 and ECON 224) or (ECON 207 and ECON 224) or ECON 230 or ECON 231
ECON 336	Public Choice	15	S2	P: ECON 230 or ECON 231 or ECON 203 or ECON 208 or (ECON 202 and ECON 224) or (ECON 207 and ECON 224) RP: ENGL 117 or an essay-based course.
ECON 337	Economic Evaluation in Health	15	S1	P: ECON 230 or ECON 231 or ECON 202 or ECON 207. RP: ENGL 117 or an essay-based course.
ECON 338	Health Economics Overview	15	NO	P: ECON 230 or ECON 231 or ECON 202 or ECON 207
ECON 339	The Economics of European Integration	15	SU1	P: Any 105 points including ECON 104 and ECON 105 and at least 30 points above 100 level. R: EURO 339 RP: ENGL 117 or an essay-based course. EQ: EURO 339
ECON 340	Development Economics	15	S2	P: ECON 202 or ECON 207 RP: ECON 105
ECON 341	Economics of Education	15	S2	P: ECON 202 or ECON 207
ECON 342	Economic History	15	S2	P: (1) ECON 104 (2) ECON 105 (3) ECON 202 or ECON 207 or ECON 206
ECON 343	Economic Analysis of Intellectual Property	15	NO	P: ECON 230 or ECON 231 or ECON 203 or ECON 208. RP: MATH 102 or MATH 199 or MATH 108
ECON 344	International Finance	15	S2	P: ECON 201 or ECON 206 or FINC 203 R: ECON 210 and FINC 315 and FINC 344 RP: 15 points in MATH or Year 13 Math with Calculus EQ: FINC 344
ECON 345	The Economics of Risk and Insurance	15	S1	P: Either (1) ECON 203 or (2) ECON 202 and FINC 205 or (3) ECON 208 and MATH 102 EQ: FINC 345

Engineering

Course Code	Course Title	Pts	2013	P/C/R/RP/EQ
ENGR 101	Foundations of Engineering	15	S1	
ENGR 102	Engineering Mechanics and Materials	15	SU2 S2	P: EMTH 118 C: EMTH 119, PHYS 101

Finance

Course Code	Course Title	Pts	2013	P/C/R/RP/EQ
FINC 201	Business Finance	15	S1 S2	P: ACCT 102 and STAT 101 or MSCI 110, plus at least 45 additional 100-level points from the BCom or BSC schedules. R: FINC 202, AFIS 204 RP: Students without a mathematics background equivalent to NCEA Level 2 should pass MATH 101 before enrolling in this course. EQ: AFIS 204

FINC 203	Financial Markets, Institutions and Instruments	15	S1	P: STAT 101 or MSCI 110, plus at least 60 additional 100-level points from the BCom or BSC schedules. R: AFIS 214 RP: Students without a mathematics background equivalent to NCEA Level 2 should pass MATH 101 before enrolling in this course. EQ: AFIS 214
FINC 205	Personal Finance with Mathematics	15	S2	P: (1) MATH 102 or MATH 108 or equivalent; (2) STAT 101 or MSCI 110 or equivalent. C: MATH 103
FINC 301	Corporate Finance Theory and Policy	15	S1	P: FINC 201, FINC 203, MATH 101 or MATH 102 or MATH 108 R: FINC 354, AFIS 304
FINC 302	Applied Corporate Finance	15	S1	P: FINC 201, FINC 203, MATH 101 or MATH 102 or MATH 108
FINC 305	Financial Modelling	15	S2	P: FINC 201, FINC 203, MATH 101 or MATH 102 or MATH 108
FINC 308	Applied Financial Analysis and Valuation	15	NO	P: FINC 201, FINC 203 R: FINC 394 and AFIS 314
FINC 311	Investments	15	S1	P: FINC 201, FINC 203, MATH 101 or MATH 102 or MATH 108 R: FINC 364, AFIS 314
FINC 312	Derivative Securities	15	S2	P: (1) FINC 203: and (2) MATH 102 RP: FINC 201 and FINC 205
FINC 316	Fixed Income Securities	15	S1	P: FINC 201, FINC 203, MATH 102 RP: FINC 205
FINC 323	Time Series Methods	15	NO	P: (1) ECON 213 and ECON 202 or (2) ECON 213 and FINC 205 EQ: ECON 323, STAT 317
FINC 331	Financial Economics	15	S2	P: Any two of (ECON 202, ECON 203, FINC 201, FINC 205). R: ECON 331 RP: MATH 103 EQ: ECON 331
FINC 344	International Finance	15	S2	P: ECON 201 or ECON 206 or FINC 203 R: FINC 315, ECON 344, ECON 210 RP: 15 points in MATH or Year 13 Math with Calculus EQ: ECON 344
FINC 345	The Economics of Risk and Insurance	15	S1	P: Either (1) ECON 203 or (2) ECON 202 and FINC 205 or (3) ECON 208 and MATH 102 EQ: ECON 345

Forestry

Course Code	Course Title	Pts	2013	P/C/R/RP/EQ
FORE 102	Forests and Societies	15	S1 S2	P: Head of Department approval to enrol required. R: FORE 101, FORE 103, FORE 104, FORE 111, FORE 121
FORE 111	Trees, Forests and the Environment	15	S1	R: FORE 101, FORE 102, FORE 103, FORE 104, FORE 105, FORE 121
FORE 218	Forest Biology	30	S1	P: 30 points from FORE 111, FORE 121, BIOL 112, or BIOL 113, or Subject to approval Chair Board of Studies R: BIOL 270, FORE 202, FORE 218
FORE 219	Introduction to Silviculture	15	S2	P: BIOL 112 and BIOL 113, or FORE 111, 131 and 141. R: PAMS 202, BIOL 252, FORE 214

Freshwater Management

Course Code	Course Title	Pts	2013	P/C/R/RP/EQ
WATR 201	Freshwater Resources	15	S2	P: Any 75 points at 100 level
WATR 301	Water Resource Management	15	S1	P: 45 points at 200 level in any subject area.

Geography

Course Code	Course Title	Pts	2013	P/C/R/RP/EQ
GEOG 106	Global Environmental Change	15	S2	R: GEOG 103
GEOG 109	Forces in Nature	15	S1	
GEOG 110	Dynamic Places: Exploring Human Environments	15	S1	R: GEOG 107
GEOG 201	Environmental Processes: Principles and Applications	15	S1	P: Any 30 points of 100-level Geography, or entry with approval of the Head of Department R: GEOG 201 prior to 2009.
GEOG 202	Globalisation and New Geographies	15	S1	P: Any 30 points of 100 level geography, or entry with the approval of the Head of Department.
GEOG 205	Introduction to Geographic Information Systems	15	SU2 S2	P: Any 30 points of 100 level geography, or entry with the approval of the Head of Department.
GEOG 206	Resource and Environmental8(OG 20)12(1 pri10(y)50(,)30(or8Tw 15.174 1.143 Td(15)Tj1.944 0 Td(SU2)205)]TJ0 Tw 5.207 0 Td[Intr)12(oduc			

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GEOL 245	Earth System Science	15	S2	P: GEOL 111 and GEOL 112, or, with a B+ average, or a standard acceptable to the Head of Department, GEOL 113 may be substituted for GEOL 111 or 112. In addition 15 points from GEOG, BIOL, CHEM or MATH 100 courses. R: GEOL 234 RP: 100-level MATH course is strongly recommended.
GEOL 331	Principles of Basin Analysis	15	S1	P: GEOL 243 and an additional 15 points from GEOL 242-245. RP: GEOL 242 or GEOL 244.
GEOL 334	Tectonics and the New Zealand continent	15	NO	P: GEOL 240, GEOL 241, and GEOL 244. C: Recommended GEOL 351, GEOL 352
GEOL 336	Magmatic Systems and Volcanology	15	S2	P: GEOL 232 or GEOL 242 plus one additional course from GEOL 233-GEOL 238 or GEOL 243-GEOL 245.
GEOL 337	Exploration and Mining Geology	15	S1	P: GEOL 242 and 15 points from GEOL 243-245.
GEOL 338	Engineering and Environmental Geology	15	S2	P: GEOL 242 and 15 points from GEOL 243-245
GEOL 339	Special Topic	15	S1	P: 30 points from GEOL 242-245 and approval of Head of Department
GEOL 340	Special Topic	15	S2	P: 30 points from GEOL 242-245 and approval of Head of Department
GEOL 342	Special Topic	15	S1	P: Entry subject to Head of Department approval.
GEOL 343	Special Topic	15	NO	P: Entry subject to Head of Department approval. EQ: GEOL 343
GEOL 351	Advanced Field Techniques	15	S1	P: (1) GEOL 230 or GEOL 240 (2) GEOL 231 or GEOL 241 (3) 44-45 points from other GEOL 200-level courses. C: 15 points from GEOL 331-338 o□ered in the same semester.
GEOL 352	Advanced Field Mapping	15	X	P: (1) GEOL 230 or GEOL 240; (2) GEOL 231 or GEOL 241; (3) 44-45 points from other GEOL 200-level courses. C: 15 points from GEOL 331-338 o□ered in the same semester. R: GEOL 329, GEOL 330
GEOL 353	Past Climates and Glaciations	15	S2	P: GEOL 243 and an additional 15 points from GEOL 242-245. RP: GEOL 245
GEOL 354	Geodynamics and Geohazards	15	S2	P: 45 points from GEOL 240-245
GEOL 355	Water and Geothermal Systems	15	S1	P: 15 points from GEOL 242-OL 25/[GE)8(OL 355)]TJ0 Tw I3P: 15 points fr24a e034
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History and Philosophy of Science

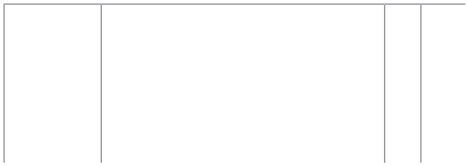
MSCI 201	Planning Methods for Management	15	S1	P: 15 points of MSCI, STAT or MATH. R: MSCI 204 RP: MSCI 101, MGMT 100
MSCI 270	Introduction to Operations and Supply Chain Management	15	S1	P: (1) MSCI 101 or MGMT 100 or MGMT 101 (2) MSCI 110 or 15 points STAT R: MSCI 220, MGMT 270 EQ: MGMT 270
MSCI 271	Operations Management Processes	15	S2	P: (1) MSCI 101 or MGMT 100 or MGMT 101 (2) MSCI 110 or 15 points STAT. R: MSCI 221, MGMT 271 RP: MGMT 270 or MSCI 270 EQ: MGMT 271
MSCI 280	Statistical Methods for Management	15	S1	P: (1) MSCI 110 or 15 points STAT (2) 15 points of MSCI or MGMT or MATH or MKTG R: MSCI 210, MGMT 280, MKTG 280 EQ: MGMT 280, MKTG 280
MSCI 340	Special Topic	15	NO	P: Subject to the approval of the Head of Department.
MSCI 370	Strategic Operations and Supply Chain Management	15	S1	P: (1) MSCI 220 or MSCI 270 or MGMT 270; (2) 22 points 200-level from MSCI, MGMT, ACIS or AFIS. R: MSCI 320, MGMT 370 RP: MSCI 221 or MSCI 271 or MGMT 271 EQ: MGMT 370
MSCI 371	Materials, Logistics and Supply Chain Management	15	S1	P: (1) MSCI 220 or MSCI 270 or MGMT 270; (2) MSCI 221 or MSCI 271 or MGMT 271 R: MSCI 321, MGMT 371 EQ: MGMT 371
MSCI 372	Project Management	15	S2	P: (1) (MSCI 220 or MSCI 270 or MGMT 270), (MSCI 221 or MSCI 271 or MGMT 271) and 22 points from Commerce; Or (2) 88 points at 200-level from Commerce, Science or Engineering. R: MSCI 322, MSCI 324, MGMT 372, AFIS 313, ACIS 313, INFO 313 EQ: MGMT 372
MSCI 373	Quality Management	15	S2	P: (1) MSCI 220 or MSCI 270 or MGMT 270; (2) MSCI 221 or MSCI 271 or MGMT 271 R: MSCI 323, MGMT 373 EQ: MGMT 373

PHIL 311	Recent and Contemporary Philosophy	30	S2	P: 45 points in PHIL, at least 30 at 200 level. R: PHIL 464 (from 2006)
PHIL 314	Greek Philosophy	30	S1	P: 45 points in PHIL, at least 30 at 200 level including PHIL 233 (INCO 219 may be substituted for any course except PHIL 233), and permission of the Programme Coordinator. R: PHIL 224, CLAS 224, CLAS 324 EQ: CLAS 324
PHIL 317	Contemporary Political Philosophy	30	S2	P: PHIL 236 or POLS 201 or PHIL 239 or B average in 45 points above 100 level in relevant subjects (e.g. PHIL, POLS, ECON, MSCI, LAWS, or SOCI) with approval of the Programme Coordinator. R: POLS 301 EQ: POLS 351, POLS 301
PHIL 318	Philosophy of Religion: Rationality, Science, and the God Hypothesis	30	S2	P: 45 points in PHIL, at least 30 at 200 level. R: RELS 210 and PHIL 229
PHIL 320	Special Topic	15	NO	P: 45 points in Philosophy, at least 30 at 200 level with approval of the Head of School. R: HLTH 407
PHIL 321	Special Topic: Ethics	15	S2	P: 45 points in Philosophy, at least 30 at 200 level with approval of the Head of School. R: PHIL 236
PHIL 324	Special Topic: Bioethics: Life, Death, and Medicine	15	S1	P: 45 points in Philosophy, at least 30 at 200 level with approval of the Head of School. R: PHIL 240

Physics

Course Code	Course Title	Pts	2013	P/C/R/RP/EQ
PHYS 101	Engineering Physics A: Mechanics, Waves and Thermal Physics	15	S1 S2	P: PHYS 111 or 14 credits NCEA Level 3 Physics and 14 credits NCEA Level 3 Mathematics with Calculus. These prerequisites may be replaced by other background as approved by the Head of Department. R: PHYS 113, PHYS 112 EQ: PHYS 113
PHYS 102	Engineering Physics B: Electromagnetism, Modern Physics and 'How Things Work'	15	SU2	P: PHYS 101. R: PHYS 114, PHYS 115 RP: These prerequisites may be replaced by other background as approved by Head of Department EQ: PHYS 114
PHYS 109	The Cosmos: Birth and Evolution	15	S2	R: ASTR 109, PHYS 110 EQ: ASTR 109
PHYS 111	Introductory Physics for Physical Sciences and Engineering	15	S1	R: PHYS 106. Students who have been credited with any of PHYS 101, PHYS 102, PHYS 113 or PHYS 114 cannot subsequently be credited with PHYS 111.
PHYS 201	Waves and Optics	15	S1	P: (1) PHYS 101; (2) MATH 102 or EMTH 118. These prerequisites may be replaced by a high level of achievement in level 3 NCEA Physics and Mathematics with Calculus or other background approved by the Head of Department. R: PHYS 221 RP: (1) PHYS 102; (2) MATH 103 or EMTH 119.

PHYS 202	Electromagnetism and Mechanics	15	S2	P: (1) PHYS 102; (2) MATH 102 or EMTH 118. These prerequisites may be replaced by a high level of achievement in level 3 NCEA Physics and Mathematics with Calculus or other background approved by the Head of Department. R: PHYS 224 RP: (1) PHYS 201; (2) MATH 103 or EMTH 119.
PHYS 203	Relativistic and Quantum Physics	15	S1	P: (1) PHYS 102; (2) MATH 102 or EMTH 118. These prerequisites may be replaced by a high level of achievement in level 3 NCEA Physics and Mathematics with Calculus or other background approved by the Head of Department. R: PHYS 222 RP: MATH 103 or EMTH 119.
PHYS 204	Thermal, Statistical and Particle Physics	15	S2	P: (1) PHYS 203; (2) MATH 103 or EMTH 119. R: PHYS 310 RP: MATH 201
PHYS 285	Experimental Physics	15	S1	P: (1) PHYS 102; (2) MATH 102 or EMTH 118 (3) MATH 170 or EMTH 171 or COSC 121 or MATH 280 or MATH 282 or [illegible] or COSC 12erimental Physics of Depar Th.5h0341e.676 Td[PHY)34170Geop



PSYC 343	Psychology of Adult Development	30	NO	P: EITHER one course from PSYC 206 - PSYC 211: OR PSYC 105 and PSYC 106 PLUS 15 points from a course approved by the Head of Department of Psychology.
PSYC 344	Research Methods	30	S1	P: PSYC 206
PSYC 345	Special Topic	30	NO	P: Subject to approval of the Head of Department.
PSYC 346	Judgement and Decision Making	15	S2	P: PSYC 206, or equivalent preparation
PSYC 348	Special Topic: Contemporary Issues in Family Psychology	15	S2	

STAT 221	Monte Carlo Methods	15	S1	P: 1) MATH 103 or MATH 199 or EMTH 119; or 2) (STAT 101 or STAT 111 or STAT 112) and (MATH 102 or EMTH 118 or MATH 108 or MATH 109). R: STAT 218
STAT 312	Sampling Methods	15	S1	P: 15 points from STAT 201, STAT 202, STAT 213, and, a further 15 points from STAT 200 to STAT 299.
STAT 313	Computational Statistics	15	NO	P: STAT 211, STAT 213, STAT 221, EMTH 210, EMTH 271 or at least B+ in (MATH 103 or EMTH 119).
STAT 314	Bayesian Inference	15	S2	P: One of the following: 1) (MATH 103 or MATH 199 or EMTH 119) and (15 points at 200-level MATH or STAT (or other quantitative 200 level courses by approval of the Head of Department)); 2) STAT 211 or STAT 213 or STAT 221.
STAT 315	Multivariate Statistical Methods	15	S1	P: 15 points from (STAT 202 or STAT 213) and a further 15 points from STAT 200-299, or, subject to Head of Department approval.
STAT 316	Applied Stochastic Modelling	15	NO	P: 15 points from STAT 211, STAT 212, STAT 221 or MATH 201. R: MATH 376
STAT 317	Time Series Methods	15	S2	P: 15 points from STAT 201, STAT 202, STAT 213 and a further 15 points from STAT 200-299, ECON 213, MATH 103, MATH 199 or EMTH 119.
STAT 318	Data Mining	15	S2	P: i) 15 points from STAT 200 to STAT 299 and ii) a further 15 points from STAT 200 to STAT 299 or COSC 200-299 or any other relevant subject with Head of Department approval.
STAT 319	Generalised Linear Models	15	S1	P: 30 points from STAT 200-299 or Head of Department approval
STAT 391	Special Topic	15	S1	P: Subject to the approval of the Head of Department
STAT 392	Special Topic	15	S2	P: Head of Department approval
STAT 393	Independent Course of Study	15	S1	P: Head of Department approval.
STAT 394	Independent Course of Study	15	S2	P: Head of Department approval.
STAT 395	Statistics Project	15	SU2	P: 30 points from STAT 210-294, and approval of Head of Department

Schedule of Endorsements for the Degree of Bachelor of Science

Biosecurity P: Head of e*6Sm(1m)iHeadi Deparo w2fe

BIOS 201 Issues in New Zealand Biosecurity (15 points)

Total 200-level points required: 105 points

300-level

BIOL 332 Invasive Systems: Genetics (15 points) and

BIOL 377 Global Change and Biosecurity (30 points)

Total 300-level points required: 45 points

Recommended courses

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

[illegible]

100-level

LAWS 101 The Legal System

SCIM 101 Science, Maori and Indigenous Knowledge

200-level

BIOL 203 Introduction to Forensic Biology

BIOL 232 Genetics (up to 2009)

BIOL 213 Microbiology and Genetics

BIOL 252 Plant Organisation and Physiology (up to 2009)

BIOL 255 Plant Ecophysiology

CHEM 224 Analytical and Environmental Chemistry

ANTA 201 Antarctica and Global Change

POLS 206 Public Policy: An Introduction

300-level

BIOL 303 Forensic Genetics

BIOL 330 Advanced Concepts in Genetics

BIOL 313 Advanced Microbiology

BIOL 352 Plant Development & Biotechnology

BIOL 309 Experimental Design and Data Analysis for Biologists

[illegible]

100-level

LAWS 101 The Legal System

SCIM 101 Science, Maori and Indigenous Knowledge

200-level

BIOL 211 Insect Biology

BIOL 212 Marine Biology

BIOL 215 Plant Diversity and Systematics

BIOL 214 Diversity of Algae (up to 2009)

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Award Regulations

(30 points) or
BIOL 313 Advanced Microbiology (30 points)
BIOL 330 Advanced Concepts in Genetics (30 points)
BIOL 332 Genetics and Evolution of Invasive Species (15 points)
BIOL 351 Cell Biology (30 points)
BIOL 371 Evolutionary Ecology (15 points)
Total 300-level required points: 60 points

Ecology

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.

(g) 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.

(h)

Strongly recommended courses

1. [illegible] 40 [illegible]

2. [illegible] 1 [illegible] 161 [illegible]

Second Professional Year

[illegible]

75 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.

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 update 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 15 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 75 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.

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
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Schedule to the Regulations for the Graduate Certificate in Science Innovation and Entrepreneurship

University of Canterbury courses

(a) SCIE 301 Science and Entrepreneurship in New Zealand Part 1
(b) SCIE 302 Science and Entrepreneurship in New Zealand Part 2

Lincoln University courses

(a) SCIE 399 Research Essay (unblocked)

University of Canterbury courses

(a) MGMT 301 Managing Change
(b) MGMT 304 Diversity in Organisations
(c) MGMT 324 International Entrepreneurship
(d) MGMT 332 International Management

Lincoln University courses

(a) SCIE 398 Research Essay (unblocked)
(b) BMGT 310 Business Plan

Graduate Diploma in Science (GradDipSc)

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, Ethics, Finance, 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 bachelor's 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 120 points including not fewer than 90 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 o□ered.

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))

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

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, Evolutionary Biology, Finance and Mathematics, Finance and Statistics, 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:

(a) either
   i. qualified for the award of a Bachelor's degree; or
   ii. been admitted under the regulations for admission ad eundem statum as entitled to enrol for the Degree of Bachelor of Science with Honours; or
   iii. gained direct entry into 200-level courses and have completed a minimum of 240 points, including 90 points at 300-level;

[illegible]

(b) And either
   i. satisfied the prerequisites for the subject to be undertaken in the BSc(Hons) as specified in the Schedule to these Regulations; or
   ii. 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;

(c) 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.

(d) 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 o□ered. 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.

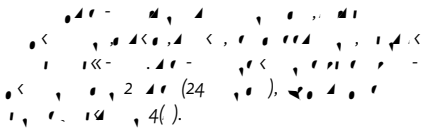
(b) Courses not to be repeated or failed: All courses must normally be passed at the first attempt. Where a candidate's performance or ability to study in one or more Honours courses has been impaired by illness or other circumstances, and an aegrotat consideration is not available, the Dean of Science 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) With the approval of the Head of Department/School and the Dean of Science, a candidate may be enrolled in Honours courses part-time.



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

322, 324, 362, 381, BIOL 313, 330, 351 or 352.

Biotechnology

Four courses and a research project (BIOT 480). The courses are BIOL 491, plus at least two others selected from BIOL 430–435, BIOL 492, BIOL 493. The fourth course should be selected with the approval of the School of Biological Sciences Fourth Year

413, ENGE 414 (ENGE 478), ENGE 415 (ENGE 486), and HAZM 410. Completion of these courses will ensure that students meet the competence standards for professional engineering geologists.

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P. (1) 15 points of MATH 100-level courses and 15 points from STAT 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 and/or Statistics.); and
(2) normally at least 30 points from ASTR, BIOL, CHEM, COSC, GEOG, PHYS, or STAT courses; and
(3) GEOL 351 and GEOL 352 (or equivalent fieldwork); and
(4) 60 points from GEOL 300-level courses. (Note: An additional 30-points at 300-level is strongly advised.)

Environmental Science

ENVR 410, ENVR 411, a project ENVR 480, and courses totalling not less than 0.75 course weighting selected from relevant courses o□ered 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 o□ered 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 Coordinator.

...

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 Coordinator, may enrol for Environmental Science honours 400-level.

Evolutionary Biology

Four courses and a research project (EVOL 480). At least two courses are to be selected from BIOL 421, BIOL 430, BIOL 431, BIOL 470, BIOL 478. The remaining two courses to be selected with the approval of the School of Biological Sciences Fourth Year Coordinator.

P. (1) BIOL 271; and
(2) 60 points from BIOL 330, BIOL 332, BIOL, 334, BIOL 335, BIOL 371, BIOL 373; and
(3) BIOL 309 or equivalent background in statistics.

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MATH 343 previously. Normally two courses will be chosen from the PHIL course list and five courses from the MATH course list.

P. (1) 45 points from MATH 201–294; and
(2) 60 points from MATH 301–394; and
(3) 45 points from PHIL 208, PHIL 209, PHIL 233, HAPS 201, HAPS 202, MATH 230; and
(4) 45 points from PHIL 301–399, HAPS 302, MATH 308, MATH 309, MATH 336.

Mathematical Physics

PHYS 407 and MAPH 480 and seven courses chosen

(a) A candidate admitted under (i) of Regulation 1(a) or Regulation 1(b) shall offer both Parts.
(b) A candidate admitted under (ii.) 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 Programme Director.

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 Programme

The Degree of Master of Audiology (MAud)

1. Qualifications Required to Enrol in the Degree

(a) Either:
   i. qualified for the award of the Degree of Bachelor of Speech and Language Pathology with Honours; or
   ii. qualified for the award of the Degree of Bachelor of Science, the Degree of Bachelor of Arts, the Degree of Bachelor of Engineering - Electrical, the Degree of Bachelor of Engineering - Mechanical, the Degree of Bachelor of Teaching and Learning (Early Childhood), or the Degree of Bachelor of Teaching and Learning (Primary), 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.

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 EFTS for students with a BSLP(Hons) and 2.21 EFTS for those without a BSLP(Hons) 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 o□er 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

The Degree of Master of Geographic Information Science (MGIS)

1. Qualifications Required to Enrol in the Degree

Every candidate for the degree of Master of Geographic Information Science (MGIS), before enrolling in the degree, shall have:

(a) either
  i. qualified for the Postgraduate Diploma in Geographic Information Science (PGDipGIS), or an equivalent postgraduate qualification, normally with a B average or better; or
  ii. qualified for a degree in a New Zealand University which is of relevance to the proposed course of study, normally with a B average or higher; and
  iii. presented evidence of ability for advanced level academic study; or
  iv. been admitted ad eundem status to enrol for the Master of Geographic Information Science.

(b) and
  i. completed at least two undergraduate courses in GIS, at least one of which should be at 300-level or higher, as approved by the Director: GIS; or
  ii. significant relevant work experience to serve as adequate preparation for the MGIS, as approved by the Director: GIS.

(c) Every candidate for the degree shall have been approved as a candidate by the Director: GIS.

2. Admission to the Degree

Students planning to complete a Master of GIS must apply for admission to the degree programme. Applications for admission must be received by the Department of Geography on the prescribed form no later than 30 January in the year preceding desired entry. It is the responsibility of the student to ensure that an up-to-date o□cial academic record is sent to the Department of Geography as soon it is available. Students must also Apply to Enrol.

3. Structure of the Degree

The programme for the degree of Master of GIS consists of Part I and Part II:

(a) A candidate admitted to the programme shall complete both Parts. A minimum of 120 points/1.00 EFTS must be completed successfully for each part, totalling a minimum of 240 points/2.00 EFTS.

(b) A candidate admitted under regulation 1(a) i. will complete MGIS Part II by Thesis only, 120 points/1.00 EFTS.

(c) All students admitted to the Master of GIS will complete a coherent programme of study approved by the Director: GIS.

4. Award of the Degree with Honours, Distinction or Merit

(a) The degree of Master of GIS 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 I and Division II.

(b) The degree of Master of GIS may be awarded with Distinction or Merit, where the candidate has completed Part II by thesis only.

5. Full-time/Part-time Enrolment

A candidate may be enrolled for the degree of Master of GIS 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 approval from the Director: GIS.

6. Duration of the Course

(a) A candidate o□ering 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 part-time study.

(b) The time limits for the thesis or research project will normally be no less than one year and no more than two years of full-time study.

(c) 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 Director: GIS.

7. Requirements for Part I

(a) The requirements for Part I shall be GISC 401, GISC 402, GISC 403, and GISC 404, one or both of GISC 405 and GISC 406; one or more of GISC 405–416, with the option of any two other 400-level courses (to a maximum of 0.25 EFTS) as approved by the Director: GIS and listed in the University of Canterbury Calendar. The total course weight for the Part I programme will be at least 1.0 EFTS. Please refer to the schedule at the end of these regulations.

The Degree of Master of Science (MSc)

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 A 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 bachelor's 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 Science; or

iii. qualify for the award of the Degree of Bachelor of Science with Honours; or

iv. qualify for the award of the Degree of Bachelor of Speech and Language Pathology with Honours; or

v. 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

vi. 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

vii. 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

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

ix. 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.

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 o□er both Parts.

(b) A candidate admitted under (iii), (iv), (v) or (vi) of Regulation 2(a) in the same subject as for the BSc(Hons) degree, BSLP(Hons), PGDipSc or PGDipEngGeol shall o□er part II only.

(c) In the case of a candidate admitted under (vi), or under (iii), (iv), or (v) to a di□erent subject, the Dean of Science shall determine whether the candidate shall o□er both Parts I and II, or Part II only, and in such cases may vary the form of the Part I requirements.

4. Concurrent or Sequential Enrolment in Parts I and II

A candidate who o□ers 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 1.0 EFTS for a full-time student, though this may be reduced to a minimum of 0.95 EFTS 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 A, 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 B 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.

7. Requirements for Part I

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

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

ii. If a candidate has failed no more than 0.25 EFTS 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 o□er 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 o□er Part II for examination, or if such a candidate chooses not to o□er 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.

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

iv. 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 o□er 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.

v. Notwithstanding anything else in Regulation 7(a), before o□ering 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 A to these regulations.

(b) Notwithstanding Regulation 7(a), a candidate o□ering 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 a□ected 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 formTJT*[minansapp(f the asse examiner BDipl the Dean of Scienca),ector cer by the Head od by rt of the Par

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 Science.

(e) In special circumstances the Dean of Science 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).

[illegible]

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 A 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 o□ering only Part II, may apply.

Candidates wishing to do this should refer to PhD Regulation 3(f). 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 A to the Regulations for the Degree of Master of Science

[illegible]

Applied Psychology

Part I consists of courses totalling 120 points (1.00 EFTS) selected from APSY 601-619 and PSYC 401, 451, 460, 461, 464, 473, and must include either PSYC 460 or 464. With the approval of the Head of Department, one or more PSYC 400 level courses may be substituted. Note: Not all courses may be o□ered in any one year.

Part II consists of courses totalling 120 points (1.00 EFTS), including APSY 660 Dissertation (90 points) and a further 30 points selected from the same set of courses o□ered in Part 1.

P. (1) PSYC 105 and PSYC 106; and
(2) PSYC 206, and three courses from PSYC 207-212, and
(3) At least 75 points of 300-level PSYC, including PSYC 344.

A B grade average in three PSYC 300-level courses is normally required. See the Limitation of Entry regulations.

Astronomy

Part I: ASTR 424, PHYS 407, ASTR 480 and four courses as follows:

(a) at least one course from ASTR 421-423, 425-426
(b) the remainder from PHYS 401-460. A maximum of two courses from PHYS 441-460.

[illegible]

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

P: 90 points at 300-level approved by the Head of Department.

[illegible]

326.

Biochemistry

Part I: Courses totalling at least 1.0 EFTS as for Biochemistry Honours, selected with the approved of the Director of Biochemistry. Normally courses are selected from BCHM 401 (BIOL 436), BCHM 403 (BIOL 435), BCHM 405 (BIOL 434), BCHM 406 (BIOL 430), BCHM 420, and CHEM 421-422. Other suitable courses include: BCHM 407-409, BIOL 431-432, BIOL 451, BIOL 491.

Part II: A thesis (BCHM 690) on a research project selected with the approval of the Director of Biochemistry. 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), BCHM 302 (CHEM 325) and BCHM 381; and additional points normally from CHEM 321, CHEM 322, CHEM 324, CHEM 362, CHEM 381, BIOL 313, BIOL 330, BIOL 351 or BIOL 352.

Biotechnology

Part 1: Four courses. BIOL 491 plus at least two other courses selected from BIOL 430-435, BIOL 492, BIOL 493. The fourth course should be selected with the approval of the School of Biological Sciences Fourth Year Coordinator.

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 or BIOL 254; and
(2) BIOL 352; and
(3) At least 30 points selected from BIOL 313, BIOL 330, BIOL 331, BIOL 333, BIOL 335.

30.

Cellular and Molecular Biology

Part I: Four courses. At least three courses are to be selected from BIOL 430-436, BIOL 491, BIOL 493. The fourth course should be selected with the approval of the School of Biological Sciences Fourth Year Coordinator.

Part II: A thesis (CEMB 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: At least 60 points selected from BCHM 301, BIOL 313, BIOL 330, BIOL 331, BIOL 333, BIOL 334, BIOL 335, BIOL 351, BIOL 352.

30.

Chemistry

Part I: All four courses CHEM 421-424 subject to the following qualifications:

Candidates credited with fewer than 70 points in 300-level Chemistry courses will be required to achieve concurrently a satisfactory standard in a further 15 points at 300-level as approved by the Head of Department.

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) CHEM 211, either CHEM 212 or BCHM 212, and 45 points from CHEM 241-243, BCHM 206; or 60 points from CHEM 211-223 and CHEM 271-273, BCHM 205 and BCHM 206; and
(2) 30 points from CHEM 281–282, BCHM 281, and CHEM 381–382; and
(3) at least 60 points from CHEM 321–373; and
(4) at least one of CHEM 381 and CHEM 382.

Child and Family Psychology

Part I: 1.25 EFTS (150 points) which shall normally consist of six courses comprising CFPY 601-604, HLTH 472, and one of EDEM 694-697, or HLTH 462, or PSYC 460 or PSYC 461 or PSYC 464.

Part II: 1.00 EFTS (120 points) consisting of a thesis (CFPY 695) which shall normally be presented no later than 24 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 1:1. The subject area of the thesis shall be approved prior to registration of the thesis by either:

(a) the Director of the Health Sciences Centre (in the case of students concurrently enrolled in the Postgraduate Diploma in Child and Family Psychology) or

(b) the Head of the Department/School/Centre in which the proposed senior supervisor is located (in consultation with the Director, Health Sciences Centre and any other HOD/S involved in supervision).

P: Part I

(1) A Bachelors degree with a major in Psychology; or

(2) Any relevant Bachelors degree and a Graduate Diploma of Science in Psychology; and

(3) PSYC 206 Research Design and Statistics or other research methods paper deemed equivalent.

Students will normally be expected to have at least a B average in their 300-level undergraduate courses

Part II: Completion of Part I

Computational and Applied Mathematics

Part I: Eight approved courses chosen from MATH 401-490 and STAT 401-490 (other than MATH449 or STAT 449). With the approval of the Programme Coordinator, candidates may substitute one or two courses from other subjects in an applications area.

Part II: A thesis (CAMS 690).

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

P: Part I

(1) 45 points from MATH 201, MATH 202, MATH 203, MATH 220, MATH 240 and MATH 270, including MATH 201 and at least one of (MATH 202 or MATH 203); and

(2) 60 points from MATH 301–394; and

(3) an additional 30 points from MATH 301–394 and STAT 301–394, or other approved courses; and

(4) 45 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 consists of eight half-courses chosen from COSC 401-439, and COSC 461-475.

For 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: 60 points at 300-level in Computer Science (including SENG 301, SENG 302, SENG 365, ENCE 360, ENCE 361).

Ecology

Part I: Four courses to be selected, with the approval of the School of Biological Sciences Fourth Year Coordinator, from BIOL 421, BIOL 453, BIOL 470-479, BIOL 490, ENVR 410, ENVR 411, FORE 616.

Part II: A thesis (ECOL 690) which shall normally be presented no la0,e (indetaiAJ/Tt(omfe appr)12(o1.365 Tc5T*[16(es 12(d

Part II: A thesis (MDPH 690) which shall normally be presented no later than 12 months (full-time enrolment) or 24 months (part-time enrolment) after the date of enrolment for Part II.

P: 90 points at 300-level, approved by the Head of Department.

Microbiology

Part I: Four courses. BIOL 492 and BIOL 493 plus a further two courses selected with the approval of the School of Biological Sciences Fourth Year Coordinator.

Part II: 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 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 313; and
(2) At least 30 points selected from BCHM 301, BIOL 330, BIOL 331, BIOL 333, BIOL 335, BIOL 351.

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: 60 points in Philosophy at 300-level.

Physics

Part I: PHYS 407, PHYS 480 and five courses chosen from PHYS 401-460, ASTR 422. A maximum of two courses from PHYS 441-460. Not all courses may be available in any one year. With the approval of the Head of Department, up to two courses may be replaced by appropriate courses from another subject. Note: the choice of courses is subject to the approval of the Head of Department of Physics and Astronomy.

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

Students should consult the MSc Regulations for further requirements.

P: 90 points at 300-level approved by the Head of Department. Note: Students will normally be expected to have taken PHYS 311 and PHYS 312 and those with an interest in theoretical physics papers will normally be expected to have taken PHYS 326.

Plant Biology

Part I: Four courses to be selected, with the approval of the School of Biological Sciences Fourth Year Coordinator, from BIOL 421, BIOL 430-432, BIOL 434-436, BIOL 453, BIOL 471-474, BIOL 476, BIOL 478, BIOL 479, 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: At least 60 points from 300-level BIOL courses

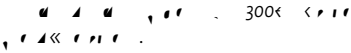
Psychology

Part I: Courses totalling 120 points (1 EFT) from PSYC 401-474.

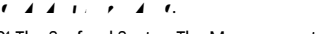
Part II:

(a) PSYC 695 Psychology MSc Thesis
(b) For students who have not already been credited with PSYC 460 or PSYC 464, PSYC601 Research Methods in Psychology OR PSYC602 Multivariate Statistics & Methods in Psychology must be completed.

P. (1) PSYC 105 and PSYC 106; and
(2) PSYC 206, and three courses from PSYC 207-212; and
(3) At least 75 points of 300-level PSYC, including PSYC 344.



Seafood Sector: Management and Science



SEAF 401 The Seafood Sector: The Management and Science Behind Fisheries and Aquaculture

This interdisciplinary course may be included as part of an MSc Part I programme with the approval of the Head of Department for your major.

Speech and Language Sciences

The Speech and Language Sciences programme consists of MSc Part II only consisting of one course and a thesis totalling 1.00 EFTS (120 points), normally completed in one year.

Part II:

(a) CMDS 605 Advanced Clinical Practicum, Supervision, and Administration (0.125 EFTS) or CMDS 604 Research Design (0.09 EFTS)
(b) CMDS 695 MSc Thesis (Clinical) (0.875 EFTS) or CMDS 696 MSc Thesis (Non-clinical) (0.91 EFTS)

P: (1) CMDS 605 and CMDS 695: Four-year Bachelor of Speech and Language Therapy degree or a Bachelor of Speech and Language Pathology with Honours degree.
(2) CMDS 696: Four-year Bachelor of Speech and Language Therapy degree or an approved undergraduate honours degree qualification in a related discipline.

[illegible]

Statistics

Part I: Eight courses chosen from STAT 401-490 and MATH 401-490 (other than STAT 449 or MATH 449). Normally one of the eight courses must be STAT 464 if the student has not been credited with STAT 213 or 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:
(1) MATH 103, MATH 109 or MATH 199; and
(2) 45 points from STAT 201-294; and
(3) 60 points from STAT 301-394; and
(4) An additional 30 points from STAT 301-394 and MATH 301-394 or other approved courses.

Zoology

Part I: Four courses to be selected, with the approval of the School of Biological Sciences Fourth Year Coordinator, from BIOL 421, BIOL 430-432, BIOL 434-436, BIOL 451, BIOL 470-474, BIOL 476, BIOL 479, BIOL 490.

Part II: A thesis (ZOOL 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: At least 60 points from 300-level BIOL courses

[illegible] 30

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

[illegible]

Time Limits and the Weighting of Parts I and II

[illegible] 31 [illegible] 2013. [illegible]

[illegible] 5 [illegible] 6.

MSc Part II Time Limits and Weightings

2013.

	Duration in full-time study	Duration in part-time study	EFTS	Points
Master's Thesis	12 months	24 months	1.00	120
Master's Dissertation*	12 months	24 months	0.75	90

1.

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.

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 Programme Director.

(b) The requirements for the Postgraduate Diploma in Antarctic Studies shall be a Postgraduate Certificate in Antarctic Studies 0.5 efts/60 points and other 400-level courses of at least 0.5 efts/60 points, approved by the Programme Director and listed in the University of Canterbury[Cs10(tu[Pr)10 Td[hw Z16(aduatrd5 ef)-10(ts/)26(60 points)TjEMC 0 Tw 1.417 0 Td[The r)12(equir)12(emenr/)26(60 0 0 9Prt[o)12(oga)5(w7.19 EFTSd)]ed Camme 6(omplet)14(e a)-10 Td( )Tj-0.01 Tc -11.536 *.187 Td[0.5 ef)-1

Postgraduate Diploma in Clinical Psychology (PGDipClinPsyc)

Requirements for Registration as a Clinical Psychologist

To be eligible for registration as a Psychologist by the Psychologists Board under the Clinical Scope of Practice, applicants must have:

(a) a minimum of a Masters degree in Psychology from an accredited educational organisation, and

(b) a postgraduate diploma in clinical psychology (or equivalent) from an accredited educational organisation; and

as part of the postgraduate diploma, applicants must have completed a Board-approved practicum/internship of at least 1500 hours of supervised practice.

It is illegal under the Health Practitioners Competency Assurance Act 2003 to claim to be a psychologist or to practice psychology unless registered. The Psychologists Board offers registration as Intern Psychologist or Trainee Psychologist to those who have met the formal academic requirements for entry into the internship/practicum and where the internship/practicum is approved by the Board.

These Postgraduate Diploma Regulations are designed to ensure that candidates meet the Board's requirement for initial registration as Intern Psychologist and then for registration under the Clinical Scope of Practice upon graduating with the Diploma.

Candidates who do not have a Masters degree in Psychology on entry into the Diploma must concurrently enrol in either a Masters or PhD in Psychology (see Regulation 2 and 3) and complete the degree before they can graduate with the Diploma.

Candidates with a Masters degree in Psychology (and who therefore have met the Board's minimum degree requirement) may concurrently enrol in a PhD, but to avoid problems arising from time competition, concurrent enrolment in the PhD and the Internship is restricted.

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 an approved 400/600-level course in research methods;

(b) been accepted as a candidate by the Head of Department of Psychology on the recommendation of the Director of Clinical Training following an interview and review of application materials (See Notes 1 & 2 below); and

(c) as a minimum academic requirement have fulfilled the requirements for the BA(Hons), or Master of Arts (Part 1), or BSc(Hons), or Master of Science (Part 1) in Psychology.

2. Concurrent enrolment in an MA or MSc

(a) Candidates who on entry to the Diploma have not qualified for the Degree of Master of Arts or Master of Science (or equivalent) in Psychology must have concurrently enrolled in a Master of Arts or Master of Science (Part 2) in Psychology before enrolling in Year 2 of the Diploma.

(b) Candidates who are enrolled in the Diploma and who are concurrently enrolled in Part 2 of the Master of Arts or Master of Science:

i. will, with the permission of the Dean of Postgraduate Studies on the recommendation of the Head of Department, be enrolled part time in the MA or MSc degree, and

ii. must maintain satisfactory progress in their work for the degree in order to maintain enrolment in the Diploma.

(c) On the recommendation of the Head of Department and with the permission of the Dean of Postgraduate Studies, students may be permitted to enrol in a PhD instead of a Master of Arts or Master of Science. (Note: This includes transfer to the PhD under 3(d) of the PhD Regulations.)

3. Concurrent enrolment in a PhD

Candidates for the Diploma who are qualified to do so may apply to enrol concurrently in a PhD. Such candidates

(a) will, with the permission of the Dean of Postgraduate Studies, on the recommendation of the Head of Department, be enrolled part time in the PhD, and

(b) must maintain satisfactory progress in their work for the degree in order to maintain enrolment in the Diploma.

(c) will only be permitted to enrol concurrently in PSYC 670 Internship in Clinical Psychology and the PhD if it is expected that the candidate will

PSYC 653	Year 2 Practicum	0.2500	W	P: Subject to approval of the Head of Department.
PSYC 654	Comprehensive Exam in Clinical Psychology	0.1000	W	P: Subject to approval of the Head of Department.

Course Code	Course Title	EFTS	2013	P/C/R/RP/EQ
PSYC 661	Advanced Topics in Clinical Psychology 1	0.2500	W	P: (1) PSYC 651, PSYC 653, PSYC 654 (2) Entry is subject to approval of the Head of Department.
PSYC 662	Advanced Topics in Clinical Psychology II	0.2500	W	P: (1) PSYC 651, PSYC 653, PSYC 654 (2) Entry is subject to approval of the Head of Department
PSYC 670	Internship in Clinical Psychology	0.5000	A	P: PSYC 651, PSYC 653, PSYC 654. Entry is subject to Head of Department approval. C: PSYC 661, PSYC 662.
PSYC 671	Internship in Clinical Psychology A - Part-time	0.2500	W	P: (1) PSYC 651, PSYC 653, PSYC 654 (2) Entry is subject to approval of the Head of Department C: PSYC 661, PSYC 662 R: PSYC 670
PSYC 672	Internship in Clinical Psychology B - Part-time	0.2500	W	P: PSYC 651, PSYC 653, PSYC 654, PSYC 671 C: PSYC 661, PSYC 662 R: PSYC 670

Postgraduate Diploma in Engineering Geology (PGDipEngGeol)

1. Qualifications Required to Enrol in the Diploma

Every candidate for the Postgraduate Diploma in

programme of study within time limits determined by the Dean of Science following recommendations of the Head of Department.

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible] 41 [illegible] 42 [illegible]

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 o□er 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 o□ered 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 a□ected 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 a□ected.

4. Award of Diploma with Distinction or Merit

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

[illegible] + [illegible] +.

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:

(a) to have the courses transferred to the Degree of Master of Science in lieu of being awarded the Diploma; or

(b) 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 Geographic Information Science (PGDipGIS)

[illegible]

1. Qualifications Required to Enrol in the Diploma

Every candidate for the Postgraduate Diploma in Geographic Information Science, before enrolling in the degree, 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 status to enrol for the Postgraduate Diploma in Geographic Information Science; and

(b) been approved as a candidate by the Director: GIS and Dean of Science.

2. Admission to the Degree

Students planning to complete a Postgraduate Diploma in GIS must apply for admission to the

(0.125 EFTS)
(d) GISC 404 Geospatial Analysis (0.125 EFTS)

Group A

At least one of the following courses:
(a) GISC 405 GIS Programming and Databases (0.125 EFTS)
(b) GISC 406 Remote Sensing for Earth Observation (0.125 EFTS)

Group B

At least one of the following courses:
(a) GISC 410 GIS 2.0 (0.125 EFTS) (O□ered by Victoria University of Wellington)
(b) GISC 411 GIS in Health (0.125 EFTS)
(c) GISC 412 Spatial Algorithms and Programming (0.125 EFTS)
(d) GISC 413 Special Topic: Geomatic Data Acquisition Techniques (0.125 EFTS)
(e) GISC 415 Geographic Information Systems (GIS) Internships (0.125 EFTS)
(f) GISC 416 Special Topic (0.125 EFTS)

And/or two other courses at 400-level or higher (to a maximum of 0.25 EFTS) relevant to a coherent programme of study with approval of the Director: GIS.

A total course weighting of at least 1.0 EFTS must be completed.

Postgraduate Diploma in Industrial and Organisational Psychology (PGDipIndOrgPsyc)

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.

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.

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

PSYC 501 Diploma in Industrial and Organisation Psychology 1.00 EFTS

Postgraduate Diploma in Science (PGDipSc)

1. Subjects in Which the Diploma May be Awarded

The subjects for the Postgraduate Diploma in Science are: Astronomy, Biochemistry, Biotechnology, Cellular and Molecular Biology, Chemistry, Child and Family Psychology, Computer Science, Computer Security and Forensics, Ecology, Environmental Science, Evolutionary Biology, Geography, Geology, Hazard and Disaster Management, History and Philosophy of Science, Management Science, Mathematics, Medical Physics, Microbiology, Philosophy, Physics, Plant Biology, 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

(a) The programme for the Diploma shall consist of a total of 120 points/1.00 EFTS from courses as laid down in the Prescriptions for the subject, to be passed in one year unless in a particular case the Dean of Science resolves otherwise.

(b) With the approval of the Heads of Departments/Schools, a candidate may replace courses up to 60 points with 400-level courses prescribed for other subjects.

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:

(a) to have the courses transferred to the Degree of Master of Science in lieu of being awarded the Diploma;

(b) 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.

[illegible]

Schedule to the Regulations for the Postgraduate Diploma in Science

[illegible]

Astronomy

Either: ASTR 424, PHYS 407, ASTR 480 and four courses, as follows:

(a) at least one course from ASTR 421–423, 425–426
(b) the remainder from PHYS 401–460. A maximum of two courses from PHYS 441–460.

Or: ASTR 424 and seven courses, as follows:

(a) at least one course from ASTR 421–423, 425–426
(b) the remainder from ASTR 430, PHYS 401–460, but no more than three courses from PHYS 441–460.

Not all courses may be o□ered in any one year.

With the approval of the Head of Department, up to two courses may be replaced by appropriate courses from another subject.

[illegible]

P: 60 points in 300-level ASTR or PHYS courses approved by the Head of Department.

Biochemistry

Courses totalling at least 1.0 EFTS as for Biochemistry honours, selected with the approval of the Director of Biochemistry. Courses normally selected from BCHM 401 (BIOL 436), BCHM 403 (BIOL 435), BCHM 405 (BIOL 434), BCHM 406 (BIOL 430), BCHM 420, and CHEM421–422. Other suitable courses include: BCHM 407–409, BIOL 431–432, BIOL 451, BIOL 491.

P: 84 points in 300-level courses: 70 points from BCHM 301 (BIOL 331), BCHM 302 (CHEM 325) and BCHM 381; and additional points normally from CHEM 321, CHEM 322, CHEM 324, CHEM 362, CHEM 381, BIOL 313, BIOL 330, BIOL 351 or BIOL 352.

Biotechnology

Four courses. BIOL 491 plus at least two other courses selected from BIOL 430–435, BIOL 492, BIOL 493. The fourth course should be selected with the approval of the School of Biological Sciences Fourth Year Coordinator.

P. (1) BIOL 252 or BIOL 254; and
(2) BIOL 352; and
(3) At least 30 points selected from BIOL 313, BIOL 330, BIOL 331, BIOL 333, BIOL 335.

[illegible] 30

Cellular and Molecular Biology

Four courses. At least three courses are to be selected from BIOL 430–436, BIOL 491, BIOL 493. The fourth course should be selected with the approval of the School of Biological Sciences Fourth Year Coordinator.

P: At least 60 points selected from BCHM 301, BIOL 313, BIOL 330, BIOL 331, BIOL 333, BIOL 334, BIOL 335, BIOL 351, BIOL 352.

[illegible] 30

Chemistry

All four courses from CHEM 421–424. Note: With the approval of the Head of Department, one of the courses may be replaced by Honours 400-level courses from another subject with a total EFTS of at least the same value.

P: 60 points at 300-level in the same subject.

Child and Family Psychology

1.00 EFTS (120 points) which shall normally be chosen from CFPY 601-604, HLTH 472 and one of EDEM 695-697, or HLTH 462, or PSYC 460 or PSYC 461 or PSYC 464.

P: (1) A Bachelors degree with a major in Psychology; or
(2) Any relevant Bachelors degree and a Graduate Diploma of Arts or Science in Psychology; and
(3) PSYC 206 Research Design and Statistics or other research methods course deemed equivalent.

1. [illegible] 300

5. Duration of the Programme

A candidate shall complete the diploma according to the following timeframe:

Full time, 1 year; Part-time, 2 years

Any student seeking to complete outside of these timeframes must seek the permission of the Programme Director and the Dean of Science

6. Repeating of Courses

(a) Re-enrolment to repeat failed courses or o□er any other course in its place will only be permitted in exceptional circumstances with the permission of the Director of the Waterways Centre for Freshwater Management and the Dean of Science.

(b) A candidate who fails any courses o□ered for the Postgraduate Diploma in Water Resource Management and is not successful under Regulation 6(a), shall not be awarded the Postgraduate Diploma, but will be awarded a Certificate of Proficiency for each course passed

7. Transfer from Postgraduate Diploma in Water Resource Management to Master of Water Resource Management

If the courses passed for the Postgraduate Diploma in Water Resource Management satisfy 15(eme(ement12(c)16(e.588 Td59obetnt satd)gT.5na),)3TJ0 Tc app-0.075 Scr Repeating of Courses 6(esU)gNatu15(emelthe c)16(ourses passea W)E