

# Faculty of Engineering and Forestry

## Diploma in Global Humanitarian Engineering (DipGlobalHumanEng)\*

\* Subject to UNZ CUAP approval due December 2015  
See also General Course and Examination Regulations.

### 1. Requirements of the Diploma

Every candidate for the Diploma in Global Humanitarian Engineering shall follow a course of study as approved by the Dean of Engineering and Forestry as laid down in these Regulations, or those consistent with the regulations in the relevant Calendar at the time they began their candidacy. The Dean of Engineering and Forestry may modify specific aspects of these degree regulations for individual candidates under the following special circumstances:

- (a) If the candidate's course of study is affected by a change in any regulations.
- (b) Prior learning and work experience; or
- (c) Other exceptional circumstances.

### 2. Structure of the Diploma

To qualify for the Diploma in Global Humanitarian Engineering a candidate must complete:

- (a) a programme of study for the Diploma of not less than 120 points, according to the requirements set out in Regulation 6 of these

not less than 120 points, according to the requirements set out in Regulation 6 of these Regulations.



**Schedule C**

Any of these courses:

Course Code	Course Title	Pts	2016	P/C/R/RP/EQ
ANTH 102	Cultural Diversity and The Making of The Modern World	15	S1	
ANTH 104	Indigenous peoples, development and anthropology	15	NO	R: MAOR 170 EQ: MAOR 170
CHCH 101	Strengthening Communities through Social Innovation	15	SU2 SU1 A S1 S2	
EDUC 103	Education, Culture and Society	15	S1	R: EDUC 120 and TEDU 111 EQ: TEDU 111
GEOL 113	Environmental Geohazards	15	S2	
MAOR 107	Aotearoa: Introduction to Traditional Maori Society	15	S1	R: PACS 102 EQ: PACS 102
MAOR 108	Aotearoa: Introduction to New Zealand Treaty Society	15	SU2	R: MAOR 113 (prior to 2006)
MAOR 165	He Timatanga: Engaging with Maori	15	SU2 S1	
POLS 105	Comparing the Politics of Nations: A Global Introduction	15	S2	
SOCI 111	Exploring Society	15	S1	
SOCI 112	Global Society	15	S2	

And a special topic as approved by the Dean of Engineering and Forestry.

**Schedule D**

Any of these courses:

Course Code	Course Title	Pts	2016	P/C/R/RP/EQ



SOCI 263	Sociology of the Everyday World	15	S2	P: 15 points of 100 level SOCI with B grade or better; or 30 points of 100 level SOCI; or students without 100 level SOCI but with a B average or better in 60 points in related subjects may enter the course with the approval of the Head of Department.
SUST 201	Resilience and Sustainability	15	NO	P: Two of BIOL 112, FORE 111, GEOG 106, GEOG 110, SCIM 101/MAOR 172

And a special topic as approved by the Dean of Engineering and Forestry.

## The Degree of Bachelor of Engineering with Honours (BE(Hons))

See also *General Course and Examination Regulations*.

### 1. Requirements of the Degree

Every candidate for the Degree of Bachelor of Engineering with Honours shall follow a course of study and non-academic requirements approved by the Dean of Engineering and Forestry as laid down in these Regulations, or those consistent with the regulations in the relevant Calendar at the time they began their candidacy. The Dean of Engineering and Forestry may modify specific aspects of these degree regulations for individual candidates under the following special circumstances:

- If the candidate's course of study is affected by a change in any regulations;
- Prior learning and work experience; or
- Other exceptional circumstances.

Any modification to a programme of study must maintain the integrity of the programme and align with the Institution of Professional Engineers New Zealand (IPENZ) accreditation guidelines for the discipline that the candidate is undertaking.

### 2. Structure of the Degree

To qualify for the Degree of Bachelor of Engineering with Honours a candidate must complete:

- a programme of study for the Engineering Intermediate Year of not less than 120 points;
- an approved academic writing test;
- a programme of three Professional Year Examinations where each year is not less than 120 points;
- a programme of study which must include not less than 120 points at 400-level or higher;
- the non-academic requirements.

Candidates are not permitted to enrol in any engineering courses of the Third Professional Examination prior to completion of the First Professional Examination.

### 3. Engineering Disciplines and Minors

- The degree of Bachelor of Engineering with Honours may be awarded in the following

programmes: Chemical and Process, Civil, Computer, Electrical and Electronic, Forest, Mechanical, Mechatronics, Natural Resources, and Software.

- The degree may also be completed with a Minor that denotes sub-specialisation within an engineering discipline.

### 4. Admission to BE(Hons) Candidacy

- Admission to the BE(Hons) shall be by approval

*not more than two years of study.*

2. *The entire BE(Hons) Intermediate Year is a pre-requisite for the Engineering First Professional Examination.*
3. *Introductory courses (MATHS 101, PHYS 111) will not be considered for credit towards the BE(Hons) Intermediate Year.*
4. *The Dean of Engineering and Forestry reserves the right to decline entry to a student who has been offered a place in the Professional Examination of the BE(Hons) degree and who has not completed his or her enrolment by the Friday preceding the first day of lectures of Semester 1.*
5. *Special admission on the basis of clause (d) must be made by written application to the Dean of Engineering and Forestry where an interview may also be required. Applicants are encouraged to approach the Dean for a copy of the entry standard guideline at the earliest possible stage.*
6. *Special admission on the basis of clause (e) must be made by written application to the Dean of Engineering and Forestry. The Dean, in consultation with the relevant Director of Studies, will consider the applicant's prior learning, in particular their preparation in Mathematics, Physics, and where applicable Chemistry or Computer Science, and any relevant work experience in industry.*

## **5. Time Limitation for Degree Completion and Suspension of Study**

- (a) Candidates enrolled, either full-time or part-time, in the Degree of Bachelor of Engineering with Honours must complete the Professional Year Examinations and the non-academic requirements in no more than six years of study.
- (b) Candidates enrolled concurrently in the Degree of Bachelor of Engineering with Honours and with another programme of study must complete the Professional Year Examinations and the non-academic requirements in a timeframe approved by the Dean of Engineering and Forestry at the time of approval into the double degree.
- (c) Candidates may seek approval from the Dean of Engineering and Forestry to suspend their studies. Where approved, this will extend the time limitation for the completion of the degree.
- (d) Candidates who have an approved suspension in study may be required to undertake a preparatory programme prior to the resumption of their studies in the Degree of Bachelor of Engineering with Honours. Any preparatory programme of study must be completed while on suspen-









- (a) ENCI 423 Advanced Structural Analysis and Dynamics
- (b) ENCI 425 Structural Steel
- (c) ENCI 426 Structural Concrete
- (d) ENCI 427 Timber Structures
- (e) ENCI 429 Structural Systems
- (f) ENCN 401 Engineering in Developing Communities
- (g) ENCN 412 Traffic Engineering
- (h) ENCN 415 Pavement Engineering
- (i) ENCN 444 Water Infrastructure and Design
- (j) ENCN 445 Environmental Fluid Mechanics
- (k) ENCN 452 Advanced Geotechnical Engineering
- (l) ENCN 454 Geotechnical Earthquake Engineering
- (m) ENCN 481 Environmental Engineering Design
- (n) ENGR 403 Fire Engineering
- (o) ENGE 411 Engineering Construction Practice
- (p) ENGE 412 Rock Mechanics and Rock Engineering
- (q) ENGE 415 Engineering Geomorphology and Geohazards
- (r) GEOL 475 Engineering and Environmental Geophysics
- (s) Any 15 point 400-level option to be approved by the Director of Studies
- (t) Candidates with a GPA of 6 or more may apply to take one 600-level course approved by the Director of Studies.





## Natural Resources Engineering

### 37. First Professional Examination

- (1) ENCI 199 Site Safety Course
- (2) EMTH 210 Engineering Mathematics 2
- (3) ENCN 201 Communication Skills Portfolio 1
- (4) ENCN 213 Design Studio 1
- (5) ENCN 221 Engineering Materials
- (6) ENCN 231 Solid Mechanics
- (7) ENCN 242 Fluid Mechanics and Hydrology
- (8) ENCN 253 Soil Mechanics
- (9) ENCN 261 Transport and Surveying
- (10) ENCN 281 Environmental Engineering

*Note: Candidates are required to attend the First Professional Examination Camp. Work at the camp will form part of the assessment for ENCN 261 Transport and Surveying.*

### 38. Second Professional Examination

- (1) ENNR 313 Natural Resources Engineering Design Studio 2
- (2) ENNR 320 Integrated Catchment Analysis
- (3) ENNR 322 Ecological Engineering
- (4) ENCN 301 Communication Skills Portfolio 2
- (5) ENCN 304 Deterministic Mathematical Methods
- (6) ENCN 305 Computer Programming and Stochastic Modelling
- (7) ENCN 342 Fluid Mechanics and Hydraulics
- (8) ENCN 353 Geotechnical Engineering
- (9) ENCN 371 Project and Infrastructure Management

*Note: Candidates are required to attend the Second Professional Year site visit tour. The tour will form part of the assessment for ENNR 313 Natural Resources Engineering Design Studio 2.*

### 39. Third Professional Examination

- (1) ENCN 493 Project
- (2) ENCN 470 Professional Engineering Development
- (3) Sufficient courses selected from:
  - (a) ENNR 405 Ecological and Bioresources Engineering
  - (b) ENNR 422 Water Resources and Irrigation Engineering
  - (c) ENNR 423 Sustainable Energy Systems
  - (d) ENCN 401 Engineering in Developing Communities
  - (e) ENCN 412 Traffic Engineering
  - (f) ENCN 415 Pavement Engineering
  - (g) ENCN 444 Water Infrastructure and Design
  - (h) ENCN 445 Environmental Fluid Mechanics
  - (i) ENCN 452 Advanced Geotechnical Engineering

- (j) ENCN 454 Geotechnical Earthquake Engineering
- (k) ENCN 481 Environmental Engineering Design
- (l) ENGR 403 Fire Engineering
- (m) ENGE 411 Engineering Construction Practice
- (n) ENGE 412 Rock Mechanics and Rock Engineering
- (o) ENGE 415 Engineering Geomorphology and Geohazards
- (p) GEOL 475 Engineering and Environmental Geophysics
- (q) Any 15 point 400-level option to be approved by the Director of Studies
- (r) Candidates with a GPA of 6 or more may apply to take one 600-level course approved by the Director of Studies

*Note: In exceptional circumstances, approved by the Director of Studies, a candidate may offer ENCN 494 in lieu of ENCN 493.*

## Software Engineering

### 40. First Professional Examination

- (1) SENG 199 Software Engineering Workshop Training Course
- (2) SENG 201 Software Engineering 1
- (3) SENG 202 Software Engineering Project Workshop
- (4) COSC 261 Formal Languages and Compilers
- (5) COSC 262 Algorithms
- (6) COSC 265 Relational Database Systems
- (7) ENCE 260 Computer Systems
- (8) Sufficient courses selected from schedules A and B below. Courses selection must include at least one course from Schedule A.

#### Schedule A

- (a) EMTH 210 Engineering Mathematics 2
- (b) MATH 220 Discrete Mathematics and Cryptography

#### Schedule B

- (a) COSC 264 Introduction to Computer Networks and the Internet
- (b) EMTH 211 Engineering Linear Algebra and Statistics
- (c) MATH 230 Logic, Automata, and Computability

### 41. Second Professional Examination

- (1) SENG 301 Software Engineering II
- (2) SENG 302 Software Engineering Group Project
- (3) SENG 365 Web Computing Architectures
- (4) COSC 368 Humans and Computers
- (5) ENEL 301 Design and Management

- (6) Sufficient courses selected from:
- COSC 362 Network and Data Security
  - COSC 363 Computer Graphics
  - COSC 364 Internet Technology and Engineering
  - COSC 367 Computational Intelligence
  - ENCE 360 Operating Systems
  - ENCE 361 Embedded Systems 1
  - Any 15 point 300-level option to be approved

by the Director of Studies

#### 42. Third Professional Examination

- SENG 401 Software Engineering III
- SENG 402 Software Engineering Research Project
- COSC 424 Secure Software
- Sufficient 400-level courses selected from COSC, SENG and ENCE approved by the Director of Studies

## The Degree of Bachelor of Forestry Science (BForSc)

See also *General Course and Examination Regulations*.

### 1. Structure of the Degree

Subject to the provisions of the following Regulations, the degree shall consist of a First, Second, Third and Fourth Forestry Examination.

*Note: Prescriptions for these Examinations are given in the UC Calendar.*

- Exemption from the First Forestry Examination**  
A candidate who has achieved sufficiently high grades in the appropriate NCEA Level 3 subjects or the University Entrance Bursaries Examination (or any other examination approved for the purpose by the Dean of Engineering and Forestry) may substitute other courses for part of or be exempt all or part of the First Forestry Examination.
- Restricted Credit**  
A candidate may enquire from the Dean of Engineering and Forestry as to the Faculty Guideline on the application of restricted credit as described in the General Course and Examination Regulations.
- Approval of Course of Study for First Forestry Examination**  
Candidates who intend to take the First Forestry Examination at either the University of Canterbury or any other New Zealand university are required to have their course of study approved by the Dean of Engineering and Forestry prior to, or at the time of, enrolment.

### Forestry Examinations

#### 2. First Forestry Examination

The courses of the First Forestry Examination shall normally be as follows:

- BIOL 111 Cellular Biology and Biochemistry
- BIOL 112 Ecology, Evolution and Conservation
- FORE 111 Trees, Forests and the Environment

- FORE 131 Trees in the Landscape
- FORE 141 Forest Growth and Measurements
- FORE 151 Commercial Aspects of Forestry
- STAT 101 Statistics 1
- Any 15 points of Chemistry at 100-level.

Notes:

- CHEM 114 Foundations of Chemistry is the recommended option for the 100-level Chemistry course.*
- Students enrolling in the First Forestry Examination at Canterbury must complete FORE 111. Students completing the First Forestry Examination at another university should complete FORE 102 as part of their examination, in lieu of FORE 111. FORE 102 is also available for students who are intending to do Forestry and who are unable to attend FORE 111 on campus.*
- A candidate who has failed to gain a pass in all of the courses of the First Forestry Examination may, with the approval of the Dean of Engineering and Forestry be permitted to repeat the course or courses failed or enrol for approved substitutes concurrently with courses of the Second Forestry Examination.*
- The Chair, Forestry Board of Studies, in consultation with the Dean of Engineering and Forestry, may modify the First Forestry Examination based on prior learning. That modified course of study may include FORE 105.*

#### 3. Second Forestry Examination

The courses of the Second Forestry Examination shall normally be as follows:

- FORE 205 Forest Engineering
- FORE 215 Introduction to Forest Economics
- FORE 218 Forest Biology
- FORE 219 Introduction to Silviculture
- FORE 222 Biometry 1A
- FORE 224 Biometry 1B

## (7) SOIL 203 Soil Fertility.

*Note: A candidate who has failed to gain a pass in all of the courses of the Second Forestry Examination may, with the approval of the Dean of Engineering and Forestry, be permitted to repeat the course or courses failed or enrol for approved substitutes concurrently with courses of the Third Forestry Examination*

#### 4. Third Forestry Examination

The courses of the Third Forestry Examination shall normally be as follows:

- (1) FORE 307 Plantation Silviculture
- (2) FORE 316 Forest Management
- (3) FORE 327 Wood Science
- (4) FORE 342 Geospatial Science in Forest Monitoring and Management
- (5) One course from either the Bachelor of Forestry Science 400-level schedule of electives, or one course offered for any other degree at 200-level or above.

*Note: A candidate who has failed to gain a pass in all of the courses of the Third Forestry Examination may, with the approval of the Dean of Engineering and Forestry be permitted to repeat the course or courses failed or enrol for approved substitutes concurrently with courses of the Fourth Forestry Examination.*

#### 5. Fourth Forestry Examination

The courses for the Fourth Forestry Examination shall normally be as follows:

- (1) FORE 419 Management Case Study
- (2) FORE 444 Sustaining Biodiversity on Private Land
- (3) FORE 445 Environmental Forestry
- (4) FORE 422 Forest Harvest Planning
- (5) Three courses from the 400-level schedule of electives:
  - (a) FORE 404–FORE 409 Special Topics
  - (b) FORE 423 Forest Transportation and Road Design
  - (c) FORE 426 Forest Products Marketing and International Trade
  - (d) FORE 435 Forest Economics 2
  - (e) FORE 436 Forest Tree Breeding
  - (f) FORE 441 Engineered Wood Products
  - (g) FORE 443 Biosecurity Risk Management
  - (h) FORE 475 Independent Course of Study
  - (i) Up to 30 points from courses offered at 300-level or above for any other degree.

Notes:

1. FORE 422 Forest Harvest Planning is a required course and may be taken in either Year Three in-

*stead of an elective or in Year Four.*

2. Candidates are required to complete four electives in total across Years Three and Four from the Forestry Science 400-level schedule.
3. A candidate's course of study shall be subject to the approval of the Dean of Engineering and Forestry.
4. A BForSc student may credit no more than 30 points from other degrees toward BForSc in total in Year Three and Four.

#### 6. Field Courses and First Aid Certificate

Every candidate shall complete to the satisfaction of the Board of Studies in Forestry four Field Trips and present proof of completion of NZQA Unit Standard 17769 (Demonstrate Knowledge of General Health, Safety and Environmental Requirements in Forestry), a current approved First Aid Certificate during their period of study, and practical work experience.

Practical Work

Candidates are required to obtain practical work experience in forestry, conservation or forest industry during the summer vacations. The School may assist students in obtaining such work, which will be credited to a candidate's non academic requirements only if performed in accordance with the following requirements:

- (a) A candidate shall have completed 90 days work in employment approved by the Head of the School of Forestry no later than the end of examinations in the final year of study.
- (b) Practical work will be credited to a candidate's course only after confirmation by the candidate's employer of the number of days worked.
- (c) The Head of the School of Forestry may relax or modify the application of clauses (a) and (b) in individual cases.

#### 7. Requirements in Subjects in Other Degrees

Except as otherwise provided in these Regulations, a candidate enrolling for any course of the BForSc degree which is also a course for examination for any other degree shall comply with such of the Regulations for that degree relating to prerequisites, combinations of courses and practical work as are applicable to that course.

#### 8. BForSc with Honours

Admission to candidacy for the BForSc with Honours shall be by approval of the Dean of Engineering and Forestry.

A candidate may qualify for admission at the end of Year 3 of the BForSc on the basis of grades in courses taken in Years 2 and 3. A candidate for BForSc with Honours will be required to enrol in

FORE 414 Dissertation in addition to satisfying the requirements of the Fourth Forestry Examination. A candidate whose work has been of a sufficiently high standard shall be recommended for admission to the Degree with First or Second Class Honours. Each candidate obtaining Second Class Honours shall be listed in either of two divisions (Division I or Division II).

### **9. Exemption for BSc and BSc(Hons) Graduates**

With the approval of the Academic Board, a candidate who has previously qualified at any New Zealand university for the award of the degree of Bachelor of Science (with or without Honours) or for any other degree may be exempted from the whole or part of both the First and Second Forestry Examinations. A special course of study, which could include both Year 2 and Year 3 papers, may be approved by the Dean of Engineering and Forestry.

10.



# Graduate Diploma in Forestry (GradDipFor)

See also *General Course and Examination Regulations*.

## 3. Award of Diploma with Distinction

### 1. Qualifications Required to Enrol in the Diploma

- (a) Every candidate for the Graduate Diploma in Forestry shall, before enrolling in the diploma, fulfil one of the following conditions, either:
  - i. qualify for a bachelor's degree; or
  - ii. be admitted ad eundem statum as entitled to enrol for the Graduate Diploma in Forestry.
- (b) Every candidate for the Diploma shall have been approved as a candidate by the Dean of Engineering and Forestry.

*Note: Graduates of the BForSc will not be admitted to the GradDipFor but may apply for the MForSc or PGDipFor.*

### 2. Structure of the Diploma

To qualify for the diploma a candidate must complete courses which have a minimum weighting of 120 points. At least 90 points shall be from the 300- and 400-level Forestry courses.



and Forestry, a candidate for the Postgraduate Certificate in Engineering may transfer to the Master of Engineering provided the following conditions have been met:

- i. The candidate has completed 45 points of the course requirements for the PGCertEng.
- ii. The candidate has achieved an average GPA of 5.0 or better in the completed courses; and
- iii. The courses completed by the candidate fulfill the coursework requirements of the relevant

programme of study for an endorsement listed in Schedule A of the ME Regulations; and

- iv. Suitable thesis supervision and research resources are available.
- (b) Where the transfer of a candidate from the



3. With the approval of the Director of the Construction Management Programme, students may credit

up to two courses offered in the Construction Management Programme at the University of Auckland.

## Schedule C to the Regulations for the Degree of Master of Engineering (Endorsed)

Any approved 400-level or higher courses offered within the University.

### Computer Science

- (1) COSC 401 Machine Learning
- (2) COSC 411 Advanced Topics in HCI
- (3) COSC 415 Information and Software Visualisation
- (4) COSC 418 Wireless Ad-hoc and Sensor Networks
- (5) COSC 420 Intelligent Tutoring Systems
- (6) COSC 421 Advanced Topics in Security
- (7) COSC 422 Advanced Computer Graphics
- (8) COSC 424 Secure Software
- (9) COSC 426 Augmented Reality
- (10) COSC 428 Computer Vision
- (11) COSC 432 Relational Methods

### Electrical and Electronic Engineering

- (1) ENEL 675 Special Topic: Advanced Embedded Systems

### Engineering Mathematics

- (1) EMTH 600 Dynamical Systems
- (2) EMTH 601 Mathematical Models in Biology
- (3) EMTH 602 Computational Fluid Mechanics
- (4) EMTH 603 Numerical Solution of Partial Differential Equations
- (5) EMTH 604 Optimisation
- (6) EMTH 605 Approximation Theory
- (7) EMTH 606 Algebraic and Symbolic Computation
- (8) EMTH 607 Cryptography and Coding Theory
- (9) EMTH 608 Industrial Case Studies

### Fire Engineering

- (1) ENGR 403 Fire Engineering

- (2) ENFE 602 Fire Dynamics
- (3) ENFE 603 Fire Safety Systems
- (4) ENFE 610 Advanced Fire Dynamics

### Forestry Science

- (1) FORE 616 Restoration Ecology
- (2) FORE 641 Plantation Forest Management
- (3) FORE 642 Advanced IT Applications in Forestry

### Human Interface Technology

- (1) HITD 602 Human Interface Technology Design and Evaluation
- (2) HITD 603 Human Interface Technology Prototyping and Projects

### Software Engineering

- (1) SENG 401 Software Engineering III
- (2) SENG 404 Software Requirements and Architecture
- (3) SENG 440 Topics in Mobile Computing

### Transport Engineering

- (1) ENTR 401 Fundamentals of Transport Engineering

#### Notes:

1. *Not all courses will be offered in any one year. Students are advised to contact the College of Engineering for an up to date list of courses offered.*
2. *Special topics are available in Chemical and Process Engineering, Civil Engineering, Earthquake Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Computer Science and Software Engineering, Engineering Mathematics and Transport Engineering. Students are advised to contact the departments for more information on special topics.*

## The Degree of Master of Engineering in Fire Engineering (MEFE)

See also General Course and Examination Regulations.

### 1. Qualifications Required to Enrol in the Degree

A candidate for the Degree of Master of Engineering in Fire Engineering shall have:

- (a) either
  - i. qualified for the award of the Degree of Bachelor of Engineering with First or Second Class



## 8. Award of a Postgraduate Certificate in Engineering Instead of MEFE

Should a candidate fail to complete the







appropriate coursework in consultation with the supervisory team.

#### 4. Award of Distinction

The degree may be awarded with Distinction for outstanding achievement measured by a GPA for the degree in the range 8.0-9.0 and completion without an extension in time.

#### 5. Qualifying Programmes

If a candidate is required in Regulation 2(b), or has not demonstrated to the satisfaction of the Dean of Engineering and Forestry a suitable standard in previous work, they must satisfactorily complete a qualifying programme of study before enrolling in the degree of Master of Engineering in Transportation. Courses taken as part of the qualifying programme may be credited towards the degree of Master in Engineering in Transport. The course of study and conditions must be approved by the Dean of Engineering and Forestry and the Director of Transportation Engineering.

#### 6. Time Limitation for Degree Completion and Suspension of Study

- (a) Candidates enrol for full-time study unless they have applied in writing and been approved by the Dean of Engineering and Forestry for part-time study.
- (b) Candidates must be enrolled either part-time or full-time on a continuous basis. If a candidate cannot be enrolled continuously due to circumstances beyond their control they must apply to the Dean of Engineering and Forestry for a suspension. Where approved, this will extend the time limitation for the completion of the degree.
- (c) Candidates enrolled for coursework only must complete either:
  - i. Within two years if in full-time study; or
  - ii. Within four years if in part-time study.
- (d) Candidates enrolled for thesis and coursework must complete either:
  - i. Within three years if in full-time study; or
  - ii. Within four years if in part-time study.
- (e) Candidates who have an approved suspension in study may be required to undertake an approved preparatory programme prior to the resumption of their studies. Any preparatory programme of study must be completed while on suspension, and immediately prior to the end of their suspension.

*Notes: Preparatory programmes of study will not normally be required where the suspension is for a calendar year or less.*

#### 7. Thesis Requirements

Candidates must follow the requirements of the General Course and Examination Regulations Part L, and the Guidelines for Master's Thesis Work, and to the Library Guide for the Presentation of Theses.

#### 8. Project Reports

The following conditions shall apply to the preparation, presentation and examination of the project report:

- (a) The project report shall describe work done by the candidate on a project approved by the Director of the Transportation Engineering Programme; the project shall be carried out by the candidate at the University under the direct supervision of a member of academic staff; in particular circumstances the project may be carried out in such other places and for such period or periods of time as may be approved by the Director of the Transportation Engineering Programme.
- (b) The candidate shall submit for examination two hard bound copies and one electronic copy of the project report to the Director of the Transportation Engineering Programme.
- (c) The project report shall be submitted by a full-time candidate within two years from the date upon which study for the Master of Engineering in Transportation by examination and project commenced or within four years by a part-time candidate.
- (d) The project report shall be examined by one or more examiners appointed by the Director of the Transportation Engineering Programme.

#### 9. Transfer from MET to PhD

Where a candidate has demonstrated high research potential and has the support of the Director of Transportation Engineering, the candidate may apply to transfer to a PhD degree, with such backdating of research thesis enrolment as may be approved by the Dean of Postgraduate Research. If approved the MET degree will be abandoned.

#### 10. Transfer from PGCertEng to MET

Where a candidate has demonstrated high research potential and has the support of the Director of Transportation Engineering, the candidate may apply to transfer from the PGCertEng to the Master of Engineering in Transportation degree, with such backdating of research enrolment as may be



- (b) been approved as a candidate for the degree by the Dean of Engineering and Forestry.

*Note: Relevance and standard of previous study is the main criteria for approval.*

### 3. Structure of the Degree

Each candidate must complete a programme of study that consists of courses with a total course weighting of not less than 120 points. The courses must be selected as follows:

- (a) courses with a total course weighting of not less than 75 points must be selected from the courses listed in Schedule B of the Master of Engineering regulations; and
- (b) any remaining courses from Schedule C of the Master of Engineering, that ensures that the total course weight is not less than 120 points.

### 4. Full-time and Part-time Enrolment

A candidate may be enrolled for the Master of Engineering Studies as a full-time or part-time candidate. A full-time candidate will enrol for not less than one year and not more than two years. A part-time candidate will enrol for not less than two years and not more than five years. Part-time enrolment requires the approval of the Dean of Engineering and Forestry.

Notes:

1. *With the approval of the Head of Department, a full-time candidate may be employed in the University in academically relevant work for up to an average of 6 hours per week over the calendar year.*
2. *Candidates are expected to be enrolled either part-time or full-time on a continuous basis. If a candidate can not be enrolled continuously due to circumstances beyond their control they must apply to the Dean of Engineering and Forestry for a suspension.*

## Schedule to the Regulations for the Degree of Master of Engineering Studies (Un-endorsed)

See Regulation 3 above.

## Schedule to the Regulations for the Degree of Master of Engineering Studies (Endorsed)

For full course information, go to [www.canterbury.ac.nz/courses](http://www.canterbury.ac.nz/courses)

### Civil Engineering

Courses with a total course weighting of not less than 75 points shall be selected from the ENCI, ENCM, ENEQ, and ENTR courses list listed in Schedule

### 5. MEngSt with Distinction

Candidates who obtain a GPA of 8.0 or more in their programme of study will be eligible to be considered for the award of MEngSt with Distinction.

### 6. Transfer from MEngSt to ME/MEFE/MET

- (a) Subject to the approval of the Dean of Engineering and Forestry, a candidate for the Master of Engineering Studies may transfer to a Master of Engineering, Master of Engineering in Fire Engineering or Master of Engineering in Transportation provided the following conditions have been met:
  - i. The candidate has completed a minimum of 45 points of the course requirements for the MEngSt; and
  - ii. The candidate has achieved an average GPA of 5.0 or more in the completed courses; and
  - iii. The courses completed by the candidate fulfil the coursework requirements of the relevant programme of study given in Schedule A of the ME regulations, or the schedule to the regulation of the MEFE, or the schedule to the regulations of the MET; and
  - iv. Suitable thesis supervision and research resources are available.
- (b) Where the transfer of a candidate from the MEngSt to the ME has been approved, the Dean of Engineering and Forestry will transfer appropriate courses from the candidate's MEngSt studies towards their ME degree.

### 7. Award of PGCertEng instead of MEngSt

Should a candidate fail to complete the requirements for the Master of Engineering Studies degree, but successfully complete the requirements for the award of the Postgraduate Certificate in Engineering, he or she may be awarded, upon the recommendation of the Academic Board, a Postgraduate Certificate in Engineering instead.

B or Schedule C of the Master of Engineering regulations and subject to approval of the Programme Director.

A maximum of 30 points may come from outside Engineering.

### Construction Management

Courses with a total course weighting of not less than 75 points shall be selected from the Construction Management course list listed in Schedule B or Schedule C of the Master of Engineering regulations and subject to approval of the Programme Director.

*Note: With the approval of the Director of the Construction Management Programme, students may credit up to 30 points offered in the Construction Management Programme at the University of Auckland or other approved University.*

### Earthquake Engineering

Courses with a total course weighting of not less than 75 points shall be selected from the Earthquake Engineering course list listed in Schedule B or Schedule C of the Master of Engineering regulations.

### Engineering Mathematics

Courses with a total course weighting of not less than 75 points shall be selected from the core Engineering Mathematics courses listed in Schedule B or Schedule C of the Master of Engineering regulations.

### Fire Engineering

Required courses:

- (a) ENFE 601 Structural Fire Engineering
- (b) ENFE 602 Fire Dynamics
- (c) ENFE 603 Fire Safety Systems
- (d) ENFE 604 Fire Design Case Study
- (e) ENFE 610 Advanced Fire Dynamics

### Mechanical Engineering

Courses with a total course weighting of not less than 75 points shall be selected from ENME courses listed in Schedule B or Schedule C of the Master of Engineering Regulations.

## The Degree of Master of Forestry Science (MForSc)

See also *General Course and Examination Regulations*.

### 1. Requirements of the Degree

Every candidate for the Degree of Master of Forestry Science shall follow a course of study approved by the Dean of Engineering and Forestry and the Postgraduate Director of Studies (Forestry) as laid down in these Regulations, or those consistent with the regulations in the relevant Calendar at the time they began their candidacy. In special circumstances the Dean of Engineering and Forestry may modify aspects of the degree regulations for individual candidates.

### 2. Qualifications Required to Enrol in the Degree

- (a) either:
  - i. qualified for the award of the Degree of Bachelor of Forestry Science with or without Honours; or
  - ii. qualified, with appropriate subjects, for the award of a degree other than the Bachelor of Forestry Science; or
  - iii. qualified for the award of Postgraduate Diploma in Forestry; or
  - iv. been admitted ad eundem statum as entitled to proceed to the Degree of Master of Forestry Science; and
- (b) been approved as a candidate for the degree by the Dean of Engineering and Forestry.

Notes:

1. *Relevance and standard of previous study are the main criteria for approval.*
2. *Candidates will be approved only if appropriate research supervision and resources are available.*

### 3. Structure of the Degree

- (a) The degree must be completed by either:
  - i. 240 points of coursework including the MForSc report selected from the Schedule to these regulations; or
  - ii. 120 points of coursework selected from the Schedule to these regulations and 120 points of thesis; or
  - iii. by 120 points of thesis alone.
- (b) Candidates approved for the thesis alone must have completed a minimum of 120 points of postgraduate level studies, or equivalent, in an appropriate field of study to Forestry Science.

### 4. Award of Distinction and Merit

coursework.

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Merit where an extension in time, as set out in Regulation 5, has been required.

## 5. Time Limitation for Degree Completion and Suspension of Study

- (a) Candidates enrol for full-time study unless they have applied in writing and been approved by the Dean of Engineering and Forestry for part-time study.
- (b) Candidates must be enrolled either part-time or full-time on a continuous basis. If a candidate cannot be enrolled continuously due to circumstances beyond their control they must apply to the Dean of Engineering and Forestry for a suspension. Where approved, this will extend the time limitation for the completion of the degree.
- (c) Candidates enrolled for coursework and report or coursework and thesis must complete either:
  - i. Within three years if in full-time study; or
  - ii. Within four years if in part-time study.
- (d) Candidates enrolled for thesis only must complete either:
  - i. Within two years if in full-time study; or
  - ii. Within three years if in part-time study.
- (e) Candidates who have an approved suspension in study may be required to undertake a preparatory programme prior to the resumption of their studies. Any preparatory programme of study must be completed while on suspension, and immediately prior to the end of their suspension  
*Note: Preparatory programmes of study will not normally be required where the suspension is for a calendar year or less.*

## 6. Subjects in Other Degrees

- (a) A candidate may offer up to 30 points of coursework not on Schedule A of the degree for Master

of Forestry Science.

- (b) A candidate enrolled in any subject that is also a subject of examination for another degree shall comply with the regulations for that degree relating to prerequisites, combinations of subjects, and practical work, as are applicable to that subject.

## 7. Thesis Requirements

Candidates must follow the requirements of the General Course and Examination Regulations Part L, and the Guidelines for Master's Thesis Work, and to the Library Guide for the Presentation of Theses.

## 8. Award of PGDipFor instead of MForSc

Subject to approval of the Dean of Engineering and Forestry, a candidate may transfer from the Master of Forestry Science to the Postgraduate Diploma in Forestry.

## 9. Award of MForSc instead of PhD

Where a thesis has been presented for the Degree of Doctor of Philosophy in the School of Forestry and the examiners are of the opinion that it does not justify the award of that degree they may recommend that it be presented for the Degree of Master of Forestry Science. In this case the Dean of Engineering and Forestry may, if required for the award of the degree, exempt the coursework component of the degree.

Where a candidate is taking the degree by Thesis or by Examination and Thesis the candidate will present a thesis embodying the results of an investigation conducted by the candidate in a subject approved by the Dean and satisfy the examiners therewith and, if so required, take an oral examination on the subject of the thesis.

# Schedule to the Regulations for the Degree of Master of Forestry Science

For full course information, go to [www.canterbury.ac.nz/courses](http://www.canterbury.ac.nz/courses)

Course Code	Course Title	EFTS	2016	P/C/R/RP/EO
FORE 422	Forest Harvest Planning	0.1250	S1	P: FORE 205 (01 Jan 2010 - present) or FORE 305 (01 Jan 2009 - present) or FORE 305 (01 Jan 2009 - present) R: ENFO 422
FORE 423	Forest Transportation and Road Design	0.1250	S2	P: FORE 205 or FORE 305 R: ENFO 423
FORE 426	Forest Products Marketing and International Trade	0.1250	S2	
FORE 435	Forest Economics 2	0.1250	S1	P: FORE 215 or subject to approval of the Head of Department. R: FORE 211, FORE 425



Forestry for a suspension. Where approved, this will extend the time limitation for the completion of the degree.

- (c) Candidates must complete within 18 months of study, unless an extension in time has been approved.
- (d) Candidates who have an approved suspension in study may be required to undertake a preparatory programme prior to the resumption of their studies. Any preparatory programme of study must be completed while on suspension, and immediately prior to the end of their suspension.

*Note: Preparatory programmes of study will not normally be required where the suspension is for a calendar year or less.*

### 5. Masters of Human Interface Technology with Distinction

Candidates who obtain a GPA of 8.0 or more in their programme of study and complete within 12 months will be eligible for the award of MHIT with Distinction.

### 6. Theses

Candidates must follow the requirements of the General Course and Examination Regulations Part L,

and the Guidelines for Master's Thesis Work, and to the Library Guide for the Presentation of Theses.

### 7. Transfer from MHIT to PhD

Where a candidate has demonstrated high research potential and has the support of the Postgraduate Director of Studies, the candidate may apply to transfer to a PhD in Human Interface Technology, with such backdating of research thesis enrolment as may be approved by the Dean of Postgraduate Research. If approved the Masters degree will be abandoned.

### 8. Award of a MHIT instead of a PhD

Where a thesis has been presented for the degree of PhD in Human Interface Technology and the examiners are of the opinion that it does not justify the award of that degree, they may recommend that it be presented for the degree of Master of Human Interface Technology. In such a case, the Dean of Engineering and Forestry may, if required for the award of the degree, exempt the course work component of the degree.

## Schedule to the Regulations for the Degree of Master of Human Interface Technology

Course Code	Course Title	EFTS	2016	P/C/R/RP/EQ
HITD 602	Human Interface Technology - Design and Evaluation	0.1250	S1 S2	P: Subject to Approval of the Dean of Engineering and Forestry R: HITD 601
HITD 603	Human Interface Technology - Prototyping and Projects	0.1250	S1 S2	P: Subject to Approval of the Dean of Engineering and Forestry R: HITD 601

## Postgraduate Certificate in Engineering (PGCertEng)

See also General Course and Examination Regulations.

### 1. Certificate Programmes

Every candidate for the Degree of Postgraduate Certificate in Engineering shall follow a course of study approved by the Dean of Engineering and Forestry and Director of Postgraduate Studies as laid down in these Regulations, or those consistent with the regulations in the relevant Calendar at the time they began their candidacy. In special circumstances the Dean of Engineering and Forestry may modify specific aspects of the degree regulations for individual candidates.

(a) The qualification of Postgraduate Certificate in

Engineering (PGCertEng) is offered by the Departments of Chemical and Process Engineering, Civil and Natural Resources Engineering, Electrical and Computer Engineering, Mathematics and Statistics, and Mechanical Engineering.

- (b) It may be awarded endorsed in the following programmes:
  - i. Civil Engineering
  - ii. Construction Management
  - iii. Earthquake Engineering
  - iv. Engineering Mathematics
  - v. Fire Engineering;
  - vi. Mechanical Engineering
  - vii. Transportation Engineering.







### **7. Award of PGDipFor instead of MForSc**

- (a) Where a candidate has followed a course of study to qualify for the degree of Master of Forestry Science by Examination and Report or Examination and Thesis and the examiners are of the opinion that the award of that degree is not justified, they may recommend the award of the Postgraduate Diploma in Forestry.
- (b) Subject to approval of the Dean of Engineering and Forestry, a candidate may transfer from the Master of Forestry Science to the Postgraduate Diploma in Forestry.

### **8. Award of PGDipFor instead of MIntFor**

Subject to the approval of the Dean of Engineering and Forestry, a candidate may transfer from the Master of International Forestry to the Postgraduate Diploma in Forestry.

### **9. Transfer to MForSc**

A candidate who completes the Postgraduate Diploma in Forestry is eligible for enrolment in the second year of a two-year MForSc programme, subject to the availability of staff and resources.