Pathways in Engineering 2018

UC UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Want to be an engineer?

To study engineering at UC you need to have a good foundation in Maths and Physics. For some engineering disciplines* Chemistry is also a must. You should aim to have at least 14 credits in each subject at NCEA Level 3. Professional Engineers also need to have good oral and written communication skills.

Year 11
NCEA Level 1 Maths, Science, English

Year 12
NCEA Level 2 Maths (including Achievement Standards 91261 & 91262), Physics, Chemistry*, English

Year 13
NCEA Level 3 Maths** (including Achievement Standards 91578 & 91579), Physics, Chemistry*

Engineering Intermediate Year
Courses in Maths, Physics, Chemistry* and Engineering Design
+ Academic Writing Assessment (ENGR100)

First Professional Year / Second Professional Year / Third Professional Year
+ ENGR200 (Engineering Work Experience
+ First Aid Course)

Bachelor of Engineering (Honours)
BE(Hons) degree

For more information on preparation for the Engineering degree at UC, including IB and CIE requirements, visit www.canterbury.ac.nz/engineering/intermediate

** For the following engineering disciplines, Chemistry is required at NCEA Level 2 and 3 (or equivalent):*
- *Chemical and Process Engineering, Civil Engineering, Forest Engineering, Mechanical Engineering, and Natural Resources Engineering*
- *This prepares you for the required 100-level Chemistry course taken in the Engineering Intermediate Year (for these disciplines).*

*** 18 credits of Level 3 Mathematics including 91577 strongly recommended.*

What kind of engineer do you want to be?

UC offers 9 engineering disciplines so you can tailor your learning to your specific interests:

Chemical and Process Engineering

- biofuels
- petrochemicals
- pharmaceuticals
- renewable energy
- biotechnology
- food and dairy
- environmental control

Civil Engineering

- structures
- earthquakes
- fire
- hydrological engineering
- timber
- transport
- geomechanics
- environmental

Computer Engineering

- electronics
- embedded systems digital processes
- hardware
- signal processing
- circuits
- networks

Electrical and Electronic Engineering

- communications
- power
- electronics
- image processing
- nanotechnology

Forest Engineering

- forest operations
- management harvesting
- transportation
- wood processing

Mechanical Engineering

- dynamics
- materials
- mechanics
- manufacturing
- biomedical

Mechatronics Engineering

- mechanics
- electronics
- sensor technology
- robotics
- control
- embedded systems

Natural Resources Engineering

- renewable energy
- bioresources
- ecosystem restoration
- engineered wetlands
- water supply

Software Engineering

- computer systems
- databases
- network and data security
- computer graphics
- computational intelligence

For more information contact:

Student Advisors

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