

Why Renewable Energy?

Climate change is perhaps the biggest challenge of our time. And the energy sector is the largest source of greenhouse gas emissions causing it.

Renewable technologies will play a pivotal role in transitioning the world away from its present reliance on fossil fuels toward a clean energy supply, at the same time as providing cheap electricity.

You can be part of this exciting change. Build your skills and knowledge in renewable energy resources and technologies for generation, conversion, and storage, as well as in broader energy systems, policy, energy, and society.

Renewable Energy at UC

New Zealand has a primary energy mix of approximately 40 percent renewables and 60 percent fossil fuels, making it an interesting country in which to study options for a transition to a more sustainable energy system. Over 80 percent of our electricity is presently produced from renewables which provides us with a good start. Researchers at UC are actively engaged in sustainable energy projects around the world, including Pacific Island nations.

Renewable Energy is interdisciplinary with relevant courses taught by all departments within the Faculty of Engineering | Te Rāngai Pūkaha and with the option to choose electives from other faculties.

Qualifications

- **Certificate of Proficiency (CoP)**
Single one-off courses for professional development
- **Postgraduate Certificate in Engineering (PGCertCivilEng)**
Four courses, 1 semester full-time or 4 years part-time
- **Master of Engineering Studies, endorsed in Renewable Energy (MEngSt)**
Eight courses, 1 year full-time or 2-5 years part-time
- **Doctor of Philosophy (PhD), with a thesis on Renewable Energy**
3 years full-time research, 6 years part-time



How do I apply?

If you are interested in further studies, please contact our **Postgraduate Administrator** at:
Civilenquiries@canterbury.ac.nz
or apply via our website www.canterbury.ac.nz/civil
which will take you to the myUC page.

Visit our website <https://www.canterbury.ac.nz/engineering/schools/cnre/postgraduate/renewable-energy/>

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Aug 2023

Postgraduate
Programme
Civil and Natural
Resources Engineering



Renewable Energy



Engineering
Te Rāngai Pūkaha

Renewable Energy

Course list

In the Master of Engineering Studies in Renewable Energy, for example, you would usually take 5 compulsory courses on renewables plus three electives tailored to your interests. The list below serves as orientation about our course offer, but there are more. For more details consult our current regulations.

Course list

The following courses are compulsory:

ENCN 423	Sustainable Energy Technologies
ENGR 621	Energy, Policy and Society
ENCN 623	Energy Systems Modelling and Analysis
ENCN 625	Wind Resource Modelling
ENEL 667	Renewable Electricity System Design

The following courses are electives:

ENGR 682	Renewable Energy Project
ENCI 601	Risk Management
ENME 605	Advanced Energy Systems Engineering
ENTR 614	Planning and Designing of Sustainable Transport
ENCN 401	Engineering in Developing Communities
ENEL 480	Electrical Power Systems
ENAE 607	Building Energy Systems Design Practice



Academic staff

Students in the programme will engage with academic staff from the University of Canterbury, as well as worldwide experts in renewable energy and industry professionals from New Zealand. For more details on academic staff, see our website. <https://www.canterbury.ac.nz/engineering/schools/cnre/people/> and <https://www.canterbury.ac.nz/engineering/schools/cnre/research/renewable-energy/>

Research

The Master programme includes an option for a research project relevant to renewable energy engineering (ENGR682). Students pursuing this option will complete research on a topic relevant to their interests under the supervision of an academic staff member. You can also do a PhD in Renewable Energy, which is a 3-year programme.



Entry requirements

Candidates must normally have completed a relevant Bachelor of Engineering with First or Second Class Honours or equivalent. However, industry experience in the field and/or relevant qualifications in science or mathematics will also be considered for admission.

Scholarships

There are scholarships available for full time master's students.