Renewable Energy Engineering

SOLABH

This stream in Renewable Energy Engineering encompasses a wider range of renewable energy technologies and their use. These include heat and electricity generation from solar thermal systems, photovoltaics, wind turbines, biomass and the important areas of solar architecture and the design of energy efficient buildings and appliances.

Renewable Energy Engineering is also available as a component of the dual degree programs.
Faculty
Faculty of Engineering

School
School of Photovoltaic and Renewable Engineering

Study Level
Undergraduate

Minimum Units of Credit
168

Specialisation Type
Honours
Available in Program(s)

Program(s) in which this honours is available

Bachelor of Engineering (Honours) - BE (Hons)

3707 Engineering (Honours)

Faculty: Faculty of Engineering
Campus: Kensington
Units of Credit: 192
Typical Duration: 4 Years
Specialisation Structure

Students must complete 168 UOC.

Level 1 Core Courses

Students must take 42 UOC of the following courses.

**ENGG1000 | 6 UOC**
Introduction to Engineering Design and Innovation

**MATS1101 | 6 UOC**
Engineering Materials and Chemistry

One of the following:

**MATH1131 | 6 UOC**
Mathematics 1A

**MATH1141 | 6 UOC**
Higher Mathematics 1A

One of the following:

**MATH1231 | 6 UOC**
Mathematics 1B

**MATH1241 | 6 UOC**
Higher Mathematics 1B

One of the following:

**PHYS1121 | 6 UOC**
Physics 1A

**PHYS1131 | 6 UOC**
Higher Physics 1A

One of the following:

**PHYS1221 | 6 UOC**
Physics 1B
Higher Physics 1B

One of the following:

- COMP1911 | 6 UOC
  Computing 1A

- ENGG1811 | 6 UOC
  Computing for Engineers

### Level 2 Core Courses

Students must take 48 UOC of the following courses.

Note: Students selecting Mathematics Strand and Physics Strand, and BE/BSc students majoring in 'Mathematics' or 'Physics' should replace MATH2019 with MATH2011 Several Variable Calculus and MATH2121 Theory and Applications of Differential Equations.

- ENGG2500 | 6 UOC
  Fluid Mechanics for Engineers

- MATH2089 | 6 UOC
  Numerical Methods and Statistics

- MMAN2700 | 6 UOC
  Thermodynamics

- SOLA2051 | 6 UOC
  Project in Photovoltaics and Renewable Energy 1

- SOLA2052 | 6 UOC
  Project in Photovoltaics and Renewable Energy 2

- SOLA2060 | 6 UOC
  Introduction to Electronic Devices

- SOLA2540 | 6 UOC
One of the following:

**MATH2018 | 6 UOC**
Engineering Mathematics 2D

**MATH2019 | 6 UOC**
Engineering Mathematics 2E

**Level 3 Core Courses**

Students must take 42 UOC of the following courses.

**MECH3610 | 6 UOC**
Advanced Thermofluids

**MECH9720 | 6 UOC**
Solar Thermal Energy Design

**SOLA3010 | 6 UOC**
Low Energy Buildings and Photovoltaics

**SOLA5051 | 6 UOC**
Life Cycle Assessment

**SOLA5052 | 6 UOC**
Biomass

**SOLA5053 | 6 UOC**
Wind Energy Converters

**SOLA5057 | 6 UOC**
Energy Efficiency

**Level 4 Core Courses**

Students must take 24 UOC of the following courses.
ELEC4122 | 6 UOC
Strategic Leadership and Ethics

SOLA4951 | 4 UOC
Research Thesis A

SOLA4952 | 4 UOC
Research Thesis B

SOLA4953 | 4 UOC
Research Thesis C

SOLA5050 | 6 UOC
Renewable Energy Policy

**Level 1 Prescribed Electives**

Students must take at least 12 UOC of the following courses.

CHEM1031 and CHEM1041 will only be available to students enrolled in a program which has a Chemistry major.

BABS1201 | 6 UOC
Molecules, Cells and Genes

BIOM1010 | 6 UOC
Engineering in Medicine and Biology

BIOS1301 | 6 UOC
Ecology, Sustainability and Environmental Science

CEIC1000 | 6 UOC
Sustainable Product Engineering and Design

CHEM1011 | 6 UOC
Chemistry 1A: Atoms, Molecules and Energy
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<tr>
<th>Code</th>
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<td>Higher Chemistry 1A: Atoms, Molecules and Energy</td>
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<td>CHEM1041</td>
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<td>COMP1531</td>
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<td>SOLA1070</td>
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**Recommended Level 1 Electives**

- ELEC1111 Elec & Telecomm Eng (6 UOC)
- SOLA1070 Sustainable Energy (6 UOC)

**Enrolment Disclaimer**

You are responsible for ensuring you enrol in courses according to your program.
requirements. myUNSW enrolment checks that you have met enrolment requirements such as pre-requisites for individual courses but not that a course will count towards your program requirements. Do not assume that because you have enrolled in a course that the course will be credited towards your program.
Additional Information

Professional Recognition

The BE (Hons) in Renewable Energy is fully accredited by Engineers Australia.
Pre-2019 Handbook Editions

Access past handbook editions (2018 and prior)

Pre-2019 Handbook Editions