

ME PATHWAY (ENERGY) ENGINEERING

Overview

At the end of Third Year students on the BE (Hons) (Energy) Engineering programme (<https://ucc-ie-public.courseleaf.com/programmes/benrg/>) may register for the BE (Hons) / ME Pathway (Energy). Students who choose not/are not eligible to register for the BE (Hons) / ME Pathway (Energy) will continue to Fourth Year of the BE (Hons) (Energy).

Entry to the ME in Energy Engineering

Entry to the ME in Energy Engineering (<https://ucc-ie-public.courseleaf.com/programmes/menrg/>) is determined based on student performance during Third Year. Students who pass the Third University Examination in Energy Engineering (<https://ucc-ie-public.courseleaf.com/programmes/benrg/>), achieving at least a 2H2 will be eligible to register for Fourth Year of the BE (Hons) / ME Pathway (Energy). In the case of students that have completed one full semester or a full year of studies abroad during Third Year, performance during the Second Year is taken into consideration, with a minimum of 2H1 in the Second Year Examination required for eligibility, in addition to passing the Third Year examination. Students who are eligible to register for the BE (Hons) / ME Pathway (Energy), but choose not to, will continue to Fourth Year of the BE (Hons) (Energy). Students passing the Third University Examination in Energy Engineering who are ineligible to register for the BE (Hons) / ME Pathway (Energy) will continue to Fourth Year of the BE (Hons) (Energy).

Note: Choice of modules is subject to the approval of the Programme Director.

Change of Registration to Fourth Year of the BE (Hons) (Energy)

A student may elect to change registration to Fourth Year of the BE (Hons) provided formal notification is received by the Student Records and Examinations Office (sreo@ucc.ie) before the end of Week 8 of Semester 1 of Fourth Year.

Programme Requirements

For information about modules, module choice, options and credit weightings, please go to Programme Requirements (p. 1).

Programme Requirements

Code	Title	Credits
Year 1 - Engineering		
Students take 60 credits as follows:		
<i>Core Modules</i>		
CE1003	Introduction to Structural and Civil Engineering	5
CE1005	Engineering Computation and Problem Solving	5
CM1001	Chemistry for Engineers	5
EE1007	Introduction to Electrical and Electronic Engineering	5
MA1011	Mathematical Methods I	5
MA1012	Mathematical Methods II	5
ME1002	Engineering Thermodynamics	5
NE1001	Introduction to Energy Engineering	5
PE1003	Introduction to Process and Chemical Engineering	5

PY1006	Physics for Engineers II	5
PY1012	Physics for Engineers I	10

Year 2 - Energy Engineering

Students take **60** credits as follows:

Core Modules

EG2002	Numerical Methods and Programming	5
CE2001	Solid and Structural Mechanics I	5
CE2003	Fluids I	5
CE2004	Fluids II	5
EE2012	Linear Circuit Analysis	5
EE2013	Non-Linear Circuit Analysis	5
EE2014	Signals and Systems 1	5
EE2015	Signals and Systems 2	5
EE2016	Electrical Power Engineering I	5
EE2017	Electrical Power Engineering II	5
NE2001	Primary Energy Engineering	5
ST1051	Introduction to Probability and Statistics	5

Year 3 - Energy Engineering

Students take **60** credits as follows:

Core Modules

CE3006	Construction Project Management	5
CE3007	Hydraulics I	5
CE3009	Environmental Engineering- Wet	5
EE3011	Power Electronics & AC Machines and Systems	5
EE3012	Electric Vehicle Energy Systems	5
EE3016	Control Engineering I	5
ME3003	Mechanical Systems	5
ME3004	Applied Thermodynamics and Work Transfer	5
NE3002	Energy in Buildings	5
NE3003	Sustainable Energy	5
NE3004	Transportation and Energy	5
NE3005	Energy Systems Modelling	5

Year 4 - ME Pathway Energy Engineering

Students take **60** credits as follows – all listed core modules (**30** credits) in Part A and a Placement module (**30** credits) in Part B:

Part A

Core Modules

EE4001	Energy Systems, Power Electronics and Drives	5
EE4002	Control Engineering II	5
EE4010	Electrical Power Systems	5
EE4014	Industrial Automation and Control	5
NE4002	Wind Energy	5
NE4008	Photovoltaic Systems	5

Part B

Core Modules

NE6060	ME Energy Placement	30
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Year 5 - ME (Energy Engineering)

ME (Energy) Engineering (<https://ucc-ie-public.courseleaf.com/programmes/menrg/>)

Total Credits **240**

Examinations

Full details and regulations governing Examinations for each programme will be contained in the *Marks and Standards Book* and for each module in the *Book of Modules*.