

Handbook 2020

Coursecode

C1137

GRADUATE CERTIFICATE IN ENERGY AND CARBON STUDIES

Murdoch University

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University Secretary
Murdoch University
South Street
Murdoch
Western Australia 6150

Telephone: (08) 9360 6000

Facsimile: (08) 9360 6847

<http://www.murdoch.edu.au>

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Cancellation of Courses, Majors, Minors and Units

The University reserves the right to cancel, without notice, any course, major, minor or unit if the number of students enrolled falls below limits set by the University or in other unforeseen circumstances.

Alternative Formats

Handbook home page:

<http://handbook.murdoch.edu.au>

This publication can also be provided in alternative formats by contacting the Equity and Social Inclusion Office at Murdoch University

Telephone: (08) 9360 6084

Facsimile: (08) 9360 6502

equity@murdoch.edu.au

<http://goto.murdoch.edu.au/EquitySocialInclusion>

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Group	Course	Offerings
Graduate Coursework Degrees and Professional Doctorates		
Energy Studies	Graduate Certificate in Energy and Carbon Studies (GradCertEnCbSt)	<ul style="list-style-type: none"> • Murdoch campus (internal) • Murdoch campus (external) • International Online (Australia) ['INT-ONLINE'] (external)

ENERGY STUDIES

GRADUATE CERTIFICATE IN ENERGY AND CARBON STUDIES (GRADCERTENCBST)

Course Codes: C1137

Environmental Engineering

Special Requirements:

This course is available to external students anywhere in the world who wish to study off campus using on-line materials. Assistance is provided by tutors by telephone, email or the Internet. External students usually study part-time, completing the certificate over one year or more.

Duration: 1 semester full-time or part-time equivalent

Availability:

- Murdoch campus (internal) Murdoch campus (external) International Online (Australia) ['INT-ONLINE'] (external)

The Graduate Certificate in Energy and Carbon Studies is designed to cater for graduates of any discipline who wish to acquire knowledge and skills in the areas of renewable and sustainable energy, as well as energy and carbon management.

Graduate Certificate in Energy and Carbon Studies (GradCertEnCbSt)

Restriction: All graduate courses are subject to restriction.

Employment Prospects:

Graduates can expect to gain employment in power generation companies, renewable energy manufacturing and installation companies, international aid organisations, government departments, energy efficiency, carbon accounting and environmental consultancies, university and private industry research organisations, and local government.

Further Study:

Students who successfully complete the Graduate Certificate may apply for admission to the Graduate Diploma in Energy and Carbon Studies.

Admission Requirements (Onshore):

Recognised Bachelor's degree (AQF Level 7) or higher, or equivalent training, or satisfactory preparation for the course through previous study or professional experience. Some of the units taken assume some prior knowledge, details of which are given in the description of each unit in the Handbook. The most common of these is the high school Physics prerequisite for units such as Energy in Society, Energy Management, and Energy Systems. Some students may therefore need to complete additional prerequisite units.

Main Research Areas:

Energy storage, solar cells, wind turbines, biomass, energy policy and economics, sustainable transport, micro-grids, remote area power supply systems, energy efficiency, climate change response.

Course Structure - 12 credit points

Core Units - 12 credit points

Select from the following:

PEN592 Energy in Society - 3 points
MURDOCH: S1-internal, S1-external, S2-external

PEN594 Energy Auditing and Management - 3 points
MURDOCH: S1-internal, S1-external

PEN590 Energy Systems - 3 points
MURDOCH: S2-internal, S2-external

PEN597 Climate Change Science and Policy - 3 points
MURDOCH: S1-internal, S1-external

PEN591 Energy Policy - 3 points
MURDOCH: S1-internal, S1-external

PEN593 Energy Economics - 3 points
MURDOCH: S2-internal, S2-external

PEN504 Greenhouse Gas Reporting and Life Cycle Assessment - 3 points
MURDOCH: S2-internal, S2-external

PEN598 Carbon Management - 3 points
MURDOCH: S1-internal, S1-external, S2-internal, S2-external

PREREQUISITES

Carbon Management (PEN598)

Enrolment in an Honours or Graduate-level course. Completion of either PEN597/OEENV599 Climate Change Science and Policy or PEN504 /OEENV504 Greenhouse Gas Reporting and Lifecycle Assessment or PEC632/PEN632 Greenhouse Science and Policy or PEC611/PEN611 Greenhouse Accounting and Life Cycle Assessment.

Climate Change Science and Policy (PEN597)

Enrolment in an honours or graduate-level course.

Energy Auditing and Management (PEN594)

Enrolment in the Graduate Certificate in Energy Studies, Graduate Certificate in Energy and Carbon Studies, Graduate Diploma in Energy Studies, Graduate Diploma in Energy and Carbon Studies, Graduate Diploma in Energy and the Environment, Master of Renewable Energy or Master of Renewable and Sustainable Energy

Energy Economics (PEN593)

Enrolment in an honours or graduate level course. Recommended PEC592/PEN592 Energy in Society (may be concurrent).

Energy Policy (PEN591)

Enrolment in an honours or graduate-level course. Recommended: PEC592/PEN592 Energy in Society and PEC593/PEN593 Energy Economics.

Energy Systems (PEN590)

Enrolment in the Graduate Certificate in Energy Studies, Graduate Certificate in Energy and Carbon Studies, Graduate Diploma in Energy Studies, Graduate Diploma in Energy and Carbon Studies, Graduate Diploma in Energy and the Environment, Master of Renewable Energy or Master of Renewable and Sustainable Energy and Master of Engineering.

Energy in Society (PEN592)

Enrolment in the Graduate Certificate in Energy Studies, Graduate Certificate in Energy and Carbon Studies, Graduate Diploma in Energy Studies, Graduate Diploma in Energy and Carbon Studies, Graduate Diploma in Energy and the Environment, Master of Renewable Energy or Master of Renewable and Sustainable Energy.

Greenhouse Gas Reporting and Life Cycle Assessment (PEN504)

Enrolment in an Honours or Graduate-level course. Recommended PEN597 Climate Change Science and Policy (may be concurrent enrolment).