

COURSE DETAIL

RENEWABLE ENERGY SYSTEMS ANALYSIS

Country

Ireland

Host Institution

University College Dublin

Program(s)

University College Dublin

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Engineering

UCEAP Course Number

168

UCEAP Course Suffix**UCEAP Official Title**

RENEWABLE ENERGY SYSTEMS ANALYSIS

UCEAP Transcript Title

RENEWABLE ENERGY

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

This course introduces the concepts behind the analysis of renewable energy systems. Choice awareness of energy systems are considered in the uptake of renewable energy systems. The fundamentals of generation, cogeneration, and tri-generation are explored for low-carbon/renewable energy systems. Methods and tools for hybrid energy systems integration and optimization to provide specified service loads (electricity, heating, and cooling) are applied considering energy flows, energy systems integration, and bases for sustainable energy systems. Design and analyses of renewables is based on special purpose computer tools with capability for integration of renewable energy resources and/or conversion technologies for multiple energy systems/sectors including energy demand and supply modelling.

Language(s) of Instruction

English

Host Institution Course Number

BSEN40350

Host Institution Course Title

RENEWABLE ENERGY SYSTEMS ANALYSIS

Host Institution Campus

University College Dublin

Host Institution Faculty

Host Institution Degree

Host Institution Department

Engineering

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