

COURSE DETAIL

RENEWABLE ENERGY

Country

Botswana

Host Institution

University of Botswana

Program(s)

Community Public Health, Gaborone

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Environmental Studies Engineering

UCEAP Course Number

116

UCEAP Course Suffix**UCEAP Official Title**

RENEWABLE ENERGY

UCEAP Transcript Title

RENEWABLE ENERGY

UCEAP Quarter Units

3.00

UCEAP Semester Units

2.00

Course Description

This course familiarizes students with renewable energy resources and technologies for their utilization. The topic covered include, renewable energy resources, their advantages and limitations; the solar energy potential of Botswana; the utilization of solar energy for power generation: photovoltaic and solar thermal electric plants; solar cells, modules, arrays, and storage batteries; stand-alone and grid-connected photovoltaic plants; solar collectors; solar plants for thermal applications such as water heating, space heating and cooling, and refrigeration; technologies for the utilization of wind, biomass and geothermal energy, hydro-power, ocean and tidal energy; renewable energy system design and economics; and socio-economic and environmental aspects of renewable energy.

Language(s) of Instruction

English

Host Institution Course Number

GEC356

Host Institution Course Title

RENEWABLE ENERGY

Host Institution Campus

University of Botswana

Host Institution Faculty

Faculty of Engineering and Technology

Host Institution Degree

Host Institution Department

Mechanical Engineering

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