



Course Code OGEN-220	Course Title Renewable Energy Resources	ECTS Credits 6
Department Management & MIS	Semester Fall / Spring	Prerequisites None
Type of Course Major Requirements	Field Energy, Oil and Gas Management	Language of Instruction English
Level of Course Undergraduate	Year of Study 2 nd	Lecturer(s) Dr Marios Valiantis
Mode of Delivery face-to-face	Work Placement N/A	Co-requisites None

Objectives of the Course:

- To develop in depth knowledge and understanding of the different forms of renewable energy available

Learning Outcomes:

On completion of this module, students are expected to be able to:

1. Gain in-depth knowledge of the different forms of renewable energy that are currently available.
2. Evaluate the different renewable technologies, develop critiques and propose solutions to energy issues.
3. Demonstrate knowledge and understanding on the application of the different renewable energy resources.

Course Content:

Principles of renewable energy; essentials of fluid dynamics; heat transfer; solar radiation; solar water heating; solar thermal applications; photovoltaic generation; hydro-power; wind power; the photosynthetic process; biomass and biofuels; wave power; tidal power; ocean thermal energy conversion; geothermal energy; energy systems, storage and transmission;

Teaching Methods:

Lectures, In-class exercises, In-class discussions and homework

Assessment Methods:

Assignments, mid-term exam, final exam

Required Textbooks:

Authors	Title	Publisher	Year	ISBN
John Twidell and Tony Weir	<i>Renewable Energy Resources</i>	Taylor & Francis	2006	
	<i>Lecture Notes</i>			