



# UNIVERSITY OF NICOSIA ΠΑΝΕΠΙΣΤΗΜΙΟ ΛΕΥΚΩΣΙΑΣ

University of Nicosia, Cyprus

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

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