UNIVERSITY of NICOSIA

Course Syllabus

Course Code	Course Title	ECTS Credits
MENG-484	Environmental Pollution	6
Prerequisites	**Department**	**Semester**
CHEM-106	Engineering	Fall, Spring
Type of Course	**Field**	**Language of Instruction**
Elective	Engineering	English
Level of Course	**Lecturer(s)**	**Year of Study**
1st Cycle	Dr Marios Constantinou	3rd or 4th
Mode of Delivery	**Work Placement**	**Corequisites**
Face-to-face	N/A	None

Course Objectives:

The main objectives of the course are to:

- Provide information on the different types of pollutants and their impacts on the humans and the ecosystem.
- Introduce mathematical/statistical models in order to assess the dispersion of pollutants as well as the associated environmental risks. Suggest control methods for the different types of pollutants.
- Provide information on laws and regulations imposed in order to restrict environmental pollution.

Learning Outcomes:

After completion of the course students are expected to be able to:

- Identify among different types of pollutants and their effects on the environment and human Beings.
- Apply mathematical/statistical models to predict dispersion of pollutants in the ecosystem.
- Identify the information and tools required to assess environmental pollution and the related health effects to human and the ecosystem.
- Be able to suggest control measures and techniques concerning atmospheric, water or terrestrial pollution challenges.

Course Content:

- Environmental Ethics.
- Environmental Risk Assessment.
- Sources of water pollution and monitoring of water quality.
- Effect of pollution on lakes, streams and oceans.
- Water treatment, wastewater treatment, laws and regulations.
- Solid Wastes, their disposal reuse, recycling and recovery.
- Air pollutants: sources and health effects.
- Meteorology and air pollution.
- Dispersion of pollutants in the atmosphere.
- Measurement of air quality.
- Air pollution Control.
- Air pollution Law and Regulations.
- Radioactivity and Health Effects.
- Sources of Radioactive Waste.
- Radioactive Waste management and Regulations.
- Noise pollution and control.
- Physical Characteristics of sound.
- Health effects of sound.
- Noise pollution control and regulations.

Learning Activities and Teaching Methods:

Lectures, in-class examples and exercises, discussion.

Assessment Methods:

Homework, midterm test, final exam, assignments.

Required Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Environmental Pollution and Control, 4th Edition	J. J. Peirce, P. A. Vesilind, R. Weiner	Butterworth-Heinemann	1997	978-0750698993

Recommended Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Environmental Physics Sustainable Energy and Climate Change	E. Boeker and R. V. Grondelle	Wiley	2011	978-0-470-66675-3
Air Pollution: Its origin and Control, 3rd Edition	K. Wark, C. F. Warner, W. T. Davis	Prentice Hall	1998	978-0673994165