

NE466 Environmental Science and Technology

COURSE INFORMATION

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Laborator y	
None	4	7	3	0	0	3

COURSE AIM

To raise the level of environmental awareness of the students, and provide them with the necessary knowledge, capabilities and attitude. This will enable them to deal more positively with environmental resources and their components, through learning about diversity and complexity within the environment and the changes that occur through human activities. Introduce the principles of resource depletion and conservation as well as sustainable development for sustainable communities and green technology

COURSE WEEKLY CONTENTS

- 1 Environmental sciences and engineering and definitions of Physical, chemical, biological, and social environments and environmental studies
- 2 Ecology and ecological system, formations, functions and limiting factors, energy transfer and materials cycling in ecosystem
- 3 Population and population growth and resources depletion and pollution.
- 4 Air pollution sources, types and control, smoke, fogs and smog phenomena.
- 5 Greenhouse gases and impacts on the environment.
- 6 Climate changes and sea level rise and management
- 7 Acid rains and its effects on soil, water and biological systems
- 8 Tropospheric and stratospheric ozone sources, roles and effects in the environment.- Midterm Exam
- 9 Sustainable developments and preventive technology
- 10 Green technology and sustainable communities
- 11 pollution types, sources and treatments
- 12 Radiation Green and radioactivity and health hazards and radiation protection
- 13 Waste sources, types and management, 12th Week Assessment
- 14 Environmental auditing, impacts assessment and methodology
- 15 Risk types, sources, characterization and management
- 16 Environmental management

STUDENT GRADING & ASSESSMENT

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	←	10	M A R K S		→	30
To be freely distributed among possible assessments							
8 to 12	←		20	M A R K S		→	20
13 to 15	←		10	M A R K S		→	10
16 or 17	40 Final						40
Total	Exams	Assign.	Quizzes	Reports	Present.	Lab.	100

REFERENCES

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- Textbook** Mackenzie L. Davies and Susan J. Masten; Principles of environmental engineering and science; third edition; Mc Graw-Hill. 2014.
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- Other** J. Glynn Henry and Gary W. Heinke; Environmental science and engineering; Second edition; Prentice-Hall, Inc, 1996.