



Philadelphia University

Faculty of Engineering - Department of Renewable Energy
Engineering
Second Semester 2016/2017

Course Information

Title: Energy environment impact (0611511)
Prerequisite: Heat dynamics (6203240)
Credit Hours: 3 credit hours (16 weeks per semester, approximately 44 contact hours)
Textbook: Energy Environment And Ecology – 2012 -by Vaish Triloki (Author)- ISBN-10: 9382174524, ISBN-13: 978-9382174523

References:

Catalog Description: Applications of chemistry and engineering fundamentals to understand environmental concepts related to human activities, mass and energy transfer, environmental chemistry for water and air pollution, Pollution management and hazard evaluation, introduction to chemical, physical and biological related to quality of water, air and earth environment, parameters that effect energy consumption and building utilization, basic resources and utilization of energy. Energy conversions, distribution and utilization of electricity and heat, environment impact of energy technology

Website: <http://www.philadelphia.edu.jo/academics/wagahfm/> Dr Wagah Al-Azzawi

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Instructor: **Office:** Engineering building, room 6728, ext: 2180.
Office hours: Sun, Tues, Thurs: 11:10-13:10 and Mon, Wed: 10:00 -12:00

Course Topics

Week	Topic
1&2	Applications of chemistry and engineering fundamentals to understand environmental concepts related to human activities,
3,4	Environmental chemistry for water and air pollution,
5	Pollution management and hazard evaluation
6, 7	Introduction to chemical, physical and biological related to quality of water,
8,9	Chemical, physical and biological related to quality of air and earth environment
10,11	Parameters that effect energy consumption and building utilization,
12	Basic resources and utilization of energy.
13, 14	Energy conversions, distribution and utilization of electricity
15	Environment impact of energy technology
16	Review, and final exam

Course Learning Outcomes and Relation to ABET Student Outcomes:

Upon successful completion of this course, a student should:

1.	Applications of chemistry and engineering fundamentals to understand environmental concepts related to human activities,	[a, e]
2.	Environmental chemistry for water and air pollution,	[a, e]
3.	Introduction to chemical, physical and biological related to quality of water, air and earth environment	[a, e]
4.	Parameters that effect energy consumption and building utilization,	[e, h]
5.	Basic resources and utilization of energy.	[b, k]
6.	Energy conversions, distribution and utilization of electricity	[a, b]
7.	Environment impact of energy technology	[a, k]

Assessment Instruments:

Evaluation of students' performance (final grade) will be based on the following categories:

Exams: Two written exams will be given. Each will cover about 3-weeks of lectures

Quizzes: 10-minute quizzes will be given to the students during the semester. These quizzes will cover material discussed during the previous lecture(s).

Homework: Problem sets will be given to students. Homework should be solved individually and submitted before the due date.

Copying homework is forbidden, any student caught copying the homework or any part of the homework will receive zero mark for that homework

Participation: Questions will be asked during lecture and the student is assessed based on his/her response

Final Exam: The final exam will cover all the class material.

Grading policy:

First Exam	20%
Second Exam	20%
Homeworks	5%
Quizzes	15%
Final Exam	40%
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Total:	100%

Attendance policy:

Absence from classes and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse, acceptable to and approved by the Dean of the relevant college/faculty, shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.