CIV 7102 Environmental Studies

Hours Per Week			Hours per Semester	Weighted Total Mark	Weighted Exam Mark	Weighted Continuous Assessment	Credit Units
LH	PH	TH	CH	WTM	WEM	WCM	CU
3	0	3	45	100	60	40	3

Course Description
This course covers environmental considerations in planning, design and management of projects and health issues in a work environment.

Objectives/Aim
- To equip the student with knowledge of environmental and health matters in construction.

Course Outline

1. Environmental Sustainability and Human Values [5 CH]
A. Human Use of Earth
B. Human Values and Environmental Problems
C. Environmental Justice
D. An Overall Plan for Sustainable Living

2. Risk Analysis and Environmental Hazards [5 CH]
A. A Perspective on Risks
B. Environmental Hazards
C. Movement and Fate of Toxins
D. How We Determine the Health Effects of Pollutants
E. Precautionary Principle

3. Solid and Hazardous Waste: An Unrecognized Resource [5 CH]
A. Solid Waste
B. Reducing Solid Waste
C. Hazardous Waste
D. Managing Hazardous Waste

4. Air and Air Pollution [5 CH]
A. The Atmosphere
B. Types and Sources of Air Pollution
C. Effects of Air Pollution
D. Controlling Air Pollutants
E. Indoor Air Pollution

5. Freshwater Resources and Water Pollution [5 CH]
A. The Importance of Water
B. Water Resource Problems
C. Water Management
D. Water Pollution

E. Improving Water Quality

6. Nonrenewable Energy Resources [5 CH]
A. Energy Consumption
B. Coal
C. Oil and Natural Gas
D. Nuclear Energy
E. Decommissioning Nuclear Power Plants

7. Renewable Energy Resources [5 CH]
A. Direct Solar Energy
B. Indirect Solar Energy
C. Other Renewable Energy Sources
D. Energy Solutions: Conservation and Efficiency

8. Health and Safety in a Work Place [5 CH]

9. Environmental Impact Assessment [5 CH]

Learning Outcomes
The student will be able to:
- Understand environmental implications of construction processes and how their impacts can be mitigated.

Method of Teaching/Delivery
The course will be conducted through lectures, tutorials, practical exercises and assignments. Basic lecture materials provided by the Lecturer will be supplemented by individual reading effort by students.

Assessment Method
Continuous assessment through assignments and practical tests, and final written examination. The final examination carry 60% of the total mark, while continuous assessment will carry a total of 40%.

Reading/ Reference Materials

Robert Staib (2005) Environmental Management and Decision Making for Business; Palgrave Macmillan

Gary S. Thorpe (2011) Barron's AP Environmental Science