MEC 4202 Environmental Engineering

Hours per Semester				Weighted Total Mark	Weighted Exam Mark	Weighted Continuous Assessment Mark	Credit Units
LH	PH	TH	CH	WTM	WEM	WCM	CU
45	30	00	60	100	60	40	4

Brief Description of Course:

This course introduces environmental elements and systems, how manufacturing and other activities affect the environment and remedial activities.

Objectives of the Course:

The objectives of this course are:

- To provide students with a strong knowledge base on environmental systems and elements.
- To discuss the impacts of human activities on the environment.
- To equip students with background and fundamental knowledge behind the techniques for conducting an environmental impact assessment.
- To equip students with the skills and knowledge to describe the existing environmental legislations in Uganda.

Expected Outcomes:

At the end of this course, a student should be able to:

- Describe the different environmental elements and systems
- Compute the impacts of various human activities on the environment
- Identify the relevant occupational, health and safety features of industrial processes
- Explain the various methods of minimizing, recycling and/or eliminating waste
- Describe existing legislative measures in place.

Course Content:

- Introduction to environmental systems (2 Hours)
- Environmental impact assessment (8 Hours)
- Environmental pollution (air, water, soil) (12 Hours)

- Waste recycling (plastics, paper) (6 Hours)
- Waste (solid, liquid, gaseous) engineering and management system including landfills and incineration (12 Hours)
- Sustainable resource utilization (8 Hours) Environmental laws and regulations (12 Hours)

Delivery Methods:

The course will be taught by using lectures and tutorials

Assessment Methods:

Course work (assignments and tests) and final examination and their relative contributions to final grade are shown as follows:

Requirement Percentage contribution

Course work 40%

Final examination 60%

Total 100%

Library Resources:

- Tchobanoglous. G, Theisen. H and Vigil. S, 1993: Integrated Solid Waste Management, McGraw-Hill, New York. Constitution of Republic of Uganda, 1995
- Corbitt, R.A, 1990: Standard Handbook of Environmental Engineering, McGraw- Hill, New York.
- Public Health Act, 1964.
- The Republic of Uganda, 1995: National Policy for the conservation of and management of wetland resources.
- The Republic of Uganda, 1995: The Environment Statute.
- The Republic of Uganda, 1995: The Water Statute.
- The Republic of Uganda, 2000: The National Environment (Wetlands, River Banks And Lake Shores Management Regulations).
- The Republic of Uganda (1998) Environment Impact Assessment Regulations.
- The Water (Waste Discharge) Regulations 1998.
- The Republic of Uganda, 2001: The National Environment (Minimum Standards For Management Of Soil Quality) Regulations.
- The Republic of Uganda, 1999: The National Environment (Waste Management) Regulations 52.