

Semester:	6				
Course Code:	CP3080				
Course Title:	Energy and Environmental Management in Process Industry				
No. of Credits:	3 (Notional Hours: 200)				
Pre-requisites:	None				
Core/Optional:	Core				
Hourly breakdown	Lecture hrs	Tutorial hrs.	Field Work hrs.	Assignment hrs.	Independent Learning & Assessment hrs.
	30	-	72	6	92
<p>Course Aim(s): To build the capacity of learners to identify energy and environmental issues in industry and propose feasible solutions.</p> <p>Intended Learning Outcomes: On successful completion of the course, the students should be able to;</p> <ul style="list-style-type: none"> ➤ Describe industry related environmental issues, cleaner production (CP) and green productivity (GP) methodologies, components of the ISO14001/ISO50001 and their implementation. ➤ Conduct materials, energy and water audits in a selected industry and propose feasible solutions to improve material and energy use. ➤ Effectively communicate technical information via oral presentation and technical reports. 					
<p>Course content/Course description:</p> <ul style="list-style-type: none"> ● Introduction Environmental issues and importance of energy and environmental management in industry ● Resource efficiency and cleaner production (RECP) Introduction to RECP, RECP methodologies. Material and energy audits, RECP tools and techniques, evaluation of RECP options ● Environmental and energy management systems Components of ISO 14001- Environmental Management Systems and ISO 50001- Energy Management Systems, Practical aspects of implementation of ISO 14001 and ISO 50001 					
<p>Teaching/Learning methods: Lectures, Field Work, In-Class Assignments</p>					
Assessment strategy:					
Continuous assessment 60%			Final assessment 40%		

Details: Assignments (20%) Field work, Presentation /Report (40%)	Theory (%) 40%	Practical (%)	Other (%)
Recommended Texts (if any):			
<ul style="list-style-type: none"> ➤ ISO14001 and ISO50001 ➤ Asian Productivity organization, Green Productivity Training Manual, 2002 (http://www.apo-tokyo.org/publications/ebooks/green-productivity-training-manual-pdf-2-8mb/). ➤ Asian Productivity Organization Training Manual on Energy efficiency for Small and Medium Enterprises, 2010 (http://www.apo-tokyo.org/publications/ebooks/training-manual-on-energy-efficiency-for-small-and-medium-enterprises-4mb) 			