HCMC UNIV. OF TECHNOLOGY AND EDUCATION Programme: Environmental Engineering Technology **Level: Undergraduate**

Course Syllabus

1. Course Title: Environmental Management

2. Course Code: ENMA134510

3. Credit Units: 3 (3/0/6) (3 units of theory/ 0 unit of practice/ 6 units of self-study)

Duration: 15 weeks (3 hours of theory+0 hours of practice, and 6 hours of self-study per

week)

4. Course Instructors

1/ MSc. Nguyen Thi Tinh Au

2/ MSc. Nguyen Ha Trang

3/ MSc. Nguyen Thi Thu Thao

5. Course Requirements

Prerequisite courses: None

Previous courses: General environment

Parallel courses: None 6. Course Description

> The course refers to the understandings of environmental management, methods of constructing environmental standards, monitoring management tools for qualities of the environment, as well as international environmental standards.

7. Course Goals

Goals	Goal Description	Programme ELOs
G1	Provide basic knowledge of environmental management: environmental standards; tools and methods in environmental quality management	ELO3
G2	Establish environmental indicators, be aware of environmental standards/Technical Regulation in decision-making process in environmental management	ELO8
G3	Enhance team working skills and systematic problem solving and reading skills in environmental management literatures in Vietnamese/English version	ELO10
G4	Apply environmental management tools to solve environmental problems	ELO12, ELO13

8. Course Learning Outcomes (CLOs)

CLOs		CLO Description	
	CLO1	Compare the environmental management tools	ELO3
G1	CLO2	Explain the concepts, terms and scope of use of environmental management systems in accordance with ISO 14000	ELO3
	CLO3	Establish environmental indicators and environmental standards/ regulations for decision-making process in environmental management	ELO3
G2	CLO4	Choose a process of environmental management system	ELO8
G2	CLO5	Calculate the environmental quality indices	ELO3
G3	CLO6	Engage in group discussion and group work	ELO10
G4	CLO7	Construct environmental management program	ELO12
G4	CLO8	Design environmental management tools	ELO13

9. Learning Resources

- Textbooks:
- 1. Textbook of Environmental quality management, Nguyen Van Phuoc
- References:
- 1. The Law on Environmental Protection, Tong Hop Publisher, 2007
- 2. ISO 14001: 2005 Environmental Management System A guide to principles, systems and supportive technologies
- 3. ESCAP, Guideline for the methodology of monitoring of water, air, hazardous waste, INFOTERRA, Vietnam/United Nations/ESSA Tech, Ltd., 1994

10. Student Assessment

- Grading scale: 10

- Assessment plan:

Туре	Content	Timeline	Assessment method	CLOs	Rate (%)
	Assigments				25
BT#1	Establishing environmental management standards	5	Subtest	CLO3	5

BT#2	Exercise of the environmental quality indices	5	Subtest	CLO3, CLO5	5
BT#4	Design environmental	Week		CLO7,	15
	communication program	3-5		CLO8	
	Assay				25
	Study materials and lecture on	Week		CLO1,	25
BT#3	development process of	5-10		CLO2,	
	management system ISO			CLO4,	
				CLO6	
Final exam				50	
	- Covering contents of all the		Wtiting	CLO1,	50
	important outcomes of the		test	CLO2,	
BT#5	course.			CLO3,	
	- 60-90 minutes duration.			CLO4,	
				CLO5,	
				CLO8	
Total				100	

11. Course Content

Week	Content	CLOs
	Chapter 1: Introduction of environmental management $(3,0,6)$	
	A/ Content and pedagogical methods in class: (3)	CLO1,
	Content:	CLO6
	1.1 The concepts regarding environmental management	
	1.2 The magtitude of environmental management	
	1.3 Objectives of environmental management activity	
1	1.4 The content of the environmental management process	
1	1.5 The trend of environmental management	
	Pedagogical methods:	
	+ Presentation of lecture	
	+ Focus group discussion	
	B/ Self-study content: (6)	
	+ Learn more about environmental quality and regulatory status in	
	Vietnam	
2-5	Chapter 2: Environmental management tool (12,0,24)	

	A/ Content and pedagogical methods in class: (12)	CLO1,
	Content:	CLO3,
	2.1 Tools selection criteria	CLO5
	2.2 Supervisory commander tools	
	2.3 Economic instruments in environmental management	
	2.4 Environmental education	
	2.5 Means of communications	
	Pedagogical methods:	
	+ Presentation of lecture	
	+ Group exercises	
	B/ Self-study content: (24)	
	+ Studying more about legal tools	
	Chapter 3: Environmental management system ISO 14000 (12,0,24)	
	A/ Content and pedagogical methods in class: (12)	CLO1,
	Content:	CLO4,
	3.1 Overview of ISO 14000	CLO5,
	3.2 The requirements of ISO 14000	CLO7
	3.3 Guide to build documentary systems in accordance with ISO	
6-9	14000	
	3.4 Internal audit in accordance with ISO 14000	
	Pedagogical methods:	
	+ Presentation of lecture	
	+ Group exercises	
-	B/ Self-study content: (24)	
	+ Sudying more about ISO 14000	
	+ Group exercises	
	Chapter 4: Environmental quality index (6,0,12)	
	A/ Content and pedagogical methods in class: (6)	CLO1,
	Content:	CLO4,
10	4.1 Introduction of environmental index	CLO5,
10-	4.2 Air quality index	CLO7
11	4.3 Water quality index	
	4.4 Soil quality index	
	4.5 Biological index	
	4.6 Socio-economic index	
	Pedagogical methods:	

	+ Presentation of lecture	
	+ Powerpoint presentation	
	+ Focus group discussion	
	+ Exercises	
	B/ Self-study content: (12)	
	+ Studying more about the countries' environmental indicators in the world	
	Chapter 5: Developing environmental quality standards (6,0,12)	
12- 13	A/ Content and pedagogical methods in class: (4) Content: 5.1 Concepts of environmental standards and regulations 5.2 Air quality standards 5.3 Surface water quality standards 5.4 Industry specific standards 5.5 Noise standards Pedagogical methods: + Presentation of lecture + Group discussion	CLO2, CLO5, CLO6, CLO7, CLO8
	B/ Self-study content: (6) + Studying more about the countries' environmental indicators in the world	
	Chapter 6: Environmental quality monitoring (6,0,12)	
14- 15	A/ Content and pedagogical methods in class: (6) Content: 6.1 Introduction of environmental monitoring 6.2 Water quality monitoring 6.3 Air quality monitoring 6.5 Monitoring system in Vietnam Pedagogical methods: + Presentation of lecture + Group discussion	CLO2, CLO5, CLO6, CLO7, CLO8
	B/ Self-study content: (12) + Learn more about soil, radiation monitoring system	

12. Learning Ethics

Students must do homework by themselves. If plagiarism is found students will get zero point.

- **13. Date of first approval:** August 1St, 2012
- 14. Approved by

Dean Head of Department Instructor

A/Prof. Nguyen Van Suc

MSc. Nguyen Thi Minh Nguyet

Nguyen Thi Tinh Au

15. Date and Up-to-date content

1 st time: Date: August 25 th , 2015	Instructor:
- Update content and structure of the programme adjusted in: teaching content and assessment method	
	Head of Department:
	Dr. Tran Thi Kim Anh