HCMC UNIVERSITY OF TECHNOLOGY AND EDUCATION FACULTY OF CHEMICAL AND FOOD TECHNOLOGY

Training Major: Environmental Technology Training degree: Undergraduate Training Program: Environmental Technology

DETAILED COURSE OUTLINE

1. Course Name: Environmental Management

Course code: ENMA134510

2. Number of Credits: 3 credits (3: 0: 6) (3 theoretical credits, 0 practical/experimental credits)

Total time: 15 weeks (3 theoretical periods + 0 practical period + 6 self-study periods per week)

3. Course lecturers:

- 1 / Major responsibility: MSc. Nguyen Thi Tinh Au
- 2 / List of another lecturers:
- 2.1 / MSc. Nguyen Ha Trang
- 2.2 / MSc. Nguyen Thi Thu Thao

4. Prerequisites:

Prerequisite subjects: None

Previous subjects: General environment

5. Course description:

The course refers to the knowledge of environmental management, methods of establishing environmental standards, monitoring and management tools for qualities of the environment, as well as international environmental standards.

Course goals

Goals	<i>Goal descriptions</i> (Course's contributions to student)	Expected learning outcome
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 selection and decision-making process in environmental management.	ELO8
G3	Enhance team working skills and systematic problem solving. Be able to read doccuments of environmental management in Vietnamese/English version.	ELO10
G4	Apply environmental management tools to solve environmental problems.	ELO12, ELO13

6. Course learning outcomes

Course expected learning outcome		Descriptions (After accomplishing this course, students are able to:)	Expected learning outcome
	CELO1	Present the concepts regarding to environmental management, objectives as well as the importance and trend in environmental management.	ELO3
	CELO2	Present the environmental management tools	ELO3
G1	CELO3	Comprehend and the concepts, terms and scope of use of environmental management systems in accordance with ISO 14000	ELO3
	CELO4	Understand how to establish environmental indicators and environmental standards/ regulations to select and make decision in environmental management.	ELO3
	CELO5	Determine building process of environmental management system	ELO8
	CELO6	Calculate the environmental quality indices	ELO3
G2	CELO7	Be aware of the education and propaganda of environmental protection.	ELO8
	CELO8	Read Engish doccuments, especially in environmental management.	ELO10
G3	CELO9	Be skillful in group discussion and group working.	ELO10

	CELO10	Present specialized scientific issues	ELO8
G4	CELO11	Build environmental management program	ELO12
	CELO12	Apply environmental management tools	ELO13

7. Learning Materials

- Books, essential textbook: 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, Guidelines for the methodology of monitoring of water, air, hazardous waste,

INFOTERRA, Vietnam/United Nations/ESSA Tech, Ltd., 1994

8. Student assessment

- Grade scale: 10
- Assessment plan:

Assessment	Contents	Schedule of progress	Assessement methods	Expected Learning Outcome	Grading weight (%)
Subtest					10
Exercise #1	Establishing environmental management standards	3 rd Week	Subtest	ELO3	5
E	Exercise of the environmental	6 th Week	Subtest	G2.2	5
Exercise #2	quality indices			ELO3	
Essay - Repo	Essay - Report				15
	Study materials and present the	5-10 th	Presentation	ELO13,	15
Exercise #3	building process of	Week		ELO10,	
	management system ISO			ELO8	
Assignments					15
Assignment	Design environmental	3-5 th	Presentation	ELO10,	15
#1	communication program	Week		ELO8,	
				ELO12	

Final exam				50
	- Including the contents	Writing test	ELO3	50
	fullfilling all the important		ELO8	
	expected learning outcomes of		ELO10	
	the course.		ELO12	
	- 60 - 90 minutes duration.		ELO13	

9. Detailed contents of course:

Week	Contents	Expected Learning Course outcome
	Chapter 1: General introduction of environmental management (3/0/6)	
	Teaching content in classroom (3)	CELO2,
	+ The concepts regarding to environmental management	CELO3,
	+ The importance of environmental management	CELO9
	+ The objectives of environmental management	
	+ The content of the environmental management	
	+ The trend of environmental management	
1	Summary of teaching methodology:	
	+ Speech	
	+ Slide presentation (Powerpoint)	
	+ Group discussion	
	B/ The contents of home self-study (6)	
	+ Find out more about the quality of Environment in Vietnam and the	
	reality situation of environmental management.	
	- List the essential leaning materials	
	+ Internet	
2-5	Chapter 2: Environmental management tool (12/0/24)	

	A / Teaching contents in classroom (12)	CELO2,
	+ Selection criteria for environmental management tools	CELO2, CELO3.
	+ Controlling and commandering tools	CELO5.
	+ Economic tools in environmental management	CELOJ, CELO7,
	+ Environmental education	CELO7, CELO9
	+ Means of environmental communications	CLLO
	Summary of teaching methodology:	
	+ Speech	
	+ Slide presentation (Powerpoint)	
	+ Group discussion	
	B / Self-study contents (24)	
	+ Studying more about legal tools	
	+ Group exercises	
	List of necessary learning materials	
	+ Law on environmental protection, Tong hop Publisher, 2007	
	Chapter 3: Environmental management system ISO 14000 (12/0/24)	
	A / Teaching contents in classroom (12)	CELO3,
	+ Overview of ISO 14000	CELO6,
	+ The requirements of ISO 14000	CELO7,
	+ Guide to build documentary systems in accordance with ISO 14000	CELO8,
	+ Internal audit in accordance with ISO 14000	CELO9,
	Summary of teaching methodology:	CELO11,
	+ Speech	CELO12
6-9	+ Slide presentation (Powerpoint)	
	+ Group discussion	
	B / Self-study contents (24)	
	+ Sudying more about ISO 14000	
	+ Group exercises	
	List of necessary learning materials	
	+ ISO 14001: 2005 Environmental management system - A guide to	
	principles, systems and supportive technologies	
10-11	Chapter 4: Environmental quality index (6/0/12)	

	A / Teaching contents in classroom (6)	CELO3,
	+ Introduction of environmental index	CELO6,
	+ Air quality index	CELO7,
	+ Water quality index	CELO8,
	+ Soil quality index	CELO9,
	+ Biological index	CELO11,
	+ Socio-economic index	CELO12
	Summary of teaching methodology:	
	+ Speech	
	+ Slide presentation (Powerpoint)	
	+ Group discussion	
	+ Exercises	
	B / Self-study contents (12)	
	+ Studying more about the countries' environmental indicators in the	
	world	
	List of necessary learning materials	
	+ Textbook of Environmental quality management, Nguyen Van Phuoc	
	Chapter 5: Establishing environmental quality standards (6/0/12)	
	A / Teaching contents in classroom (6)	CELO3,
		CELO3, CELO6,
	A / Teaching contents in classroom (6)	
	A / Teaching contents in classroom (6) + Concepts of environmental standards and regulations	CELO6,
	 A / Teaching contents in classroom (6) + Concepts of environmental standards and regulations + Air quality standards 	CELO6, CELO7,
	 A / Teaching contents in classroom (6) + Concepts of environmental standards and regulations + Air quality standards + Surface water quality standards 	CELO6, CELO7, CELO8,
	 A / Teaching contents in classroom (6) + Concepts of environmental standards and regulations + Air quality standards + Surface water quality standards + Environmental standards for industry 	CELO6, CELO7, CELO8, CELO9,
12-13	 A / Teaching contents in classroom (6) + Concepts of environmental standards and regulations + Air quality standards + Surface water quality standards + Environmental standards for industry 	CELO6, CELO7, CELO8, CELO9, CELO11,
12-13	 A / Teaching contents in classroom (6) + Concepts of environmental standards and regulations + Air quality standards + Surface water quality standards + Environmental standards for industry + Noise standards 	CELO6, CELO7, CELO8, CELO9, CELO11,
12-13	A / Teaching contents in classroom (6) + Concepts of environmental standards and regulations + Air quality standards + Surface water quality standards + Environmental standards for industry + Noise standards Summary of teaching methodology:	CELO6, CELO7, CELO8, CELO9, CELO11,
12-13	A / Teaching contents in classroom (6) + Concepts of environmental standards and regulations + Air quality standards + Surface water quality standards + Environmental standards for industry + Noise standards Summary of teaching methodology: + Speech	CELO6, CELO7, CELO8, CELO9, CELO11,
12-13	A / Teaching contents in classroom (6) + Concepts of environmental standards and regulations + Air quality standards + Surface water quality standards + Environmental standards for industry + Noise standards Summary of teaching methodology: + Speech + Slide presentation (Powerpoint)	CELO6, CELO7, CELO8, CELO9, CELO11,
12-13	A / Teaching contents in classroom (6) + Concepts of environmental standards and regulations + Air quality standards + Surface water quality standards + Environmental standards for industry + Noise standards Summary of teaching methodology: + Speech + Slide presentation (Powerpoint) + Group discussion	CELO6, CELO7, CELO8, CELO9, CELO11,
12-13	A / Teaching contents in classroom (6) + Concepts of environmental standards and regulations + Air quality standards + Surface water quality standards + Environmental standards for industry + Noise standards Summary of teaching methodology: + Speech + Slide presentation (Powerpoint) + Group discussion B / Self-study content (12)	CELO6, CELO7, CELO8, CELO9, CELO11,
12-13	A / Teaching contents in classroom (6) + Concepts of environmental standards and regulations + Air quality standards + Surface water quality standards + Environmental standards for industry + Noise standards Summary of teaching methodology: + Speech + Slide presentation (Powerpoint) + Group discussion B / Self-study content (12) + Studying more about the countries' environmental standards in the	CELO6, CELO7, CELO8, CELO9, CELO11,

	Chapter 6: Environmental quality monitoring (6/0/12)	
	A / Teaching content in classroom (6)	CELO3,
	+ Introduction of environmental monitoring	CELO6,
	+ Water quality monitoring	CELO7,
	+ Air quality monitoring	CELO8,
	+ Monitoring system in Vietnam	CELO9,
	Summary of teaching methodology:	CELO11,
14-15	+ Speech	CELO12
14 15	+ Slide presentation (Powerpoint)	
	+ Group discussion	
	B / Self-study contents (12)	
	+ Learn more about soil, radiation monitoring system	
	List of necessary learning materials	
	+ ESCAP, Methodological guidlines for monitoring water, air,	
	hazardous waste, INFOTERRA, Vietnam/United Nations/ESSA Tech,	
	Ltd., 1994	

10. Scienctific ethics:

+ If any exercises, translations are found to be copied from Inernet, these students will be deducted 100% of the process grade. In case of servere infringement, final exam will be banned from all students making unauthorized copy.

+ Students who do not complete the tasks (item 9) will be suspended and proposed to be disciplined.

+ Sinh viên thi hộ thì cả hai người thi hộ và nhờ thi hộ sẽ bị đình chỉ học tập hoặc bị đuổi học.

+ Both students who are acused of taking an exam in the name of the other and students who ask someone to help to take the exam will be suspended or expelled.

11. Date of first approval:

12. Approval by:

Dean of the faculty

Head of department

Editorial Group

13. The process of updating course outline

1 st : updated content: Date	<who needs<="" th="" updating=""></who>
	to sign and write full
	name>
	Head of Department: