## **Module Handbook**

Module Level: Abbreviation, if applicable: LKK301   LKK	Module Name:	Environmental Chemistry
Sub-heading, if applicable:  Courses included in the module, if applicable:  Semester/term:  Module coordinator(s):  Lecturer(s):  Prof. Dr. Sugianto, Apt.  Prof. Dr. Muhamad Zainuddin, Apt.  Prof. Dr. Sugianto, Apt.  Language:  Classification within the curriculum:  Teaching format/class hours per week during the semester:  Workload:  Credit Points:  Requirements:  Learning goal/competencies:  Total 11 hours a semester  Credit Points:  I Students must have taken Pharmaceutical Analysis I (KIA206) and Pharmaceutical Analysis II (KIA307) courses.  Knowledge  To understand the effect of organic and anorganic chemical compounds to environment.  Skills  Discipline, honesty, and attentive.  Competence  To understand and able to explain the effect of organic and anorganic analytical chemistry in analyzing pollutant.  To understand policy and constitutions which regulate the handling of chemical waste from pharmaceutical industries, hospitals, and other health services.  Content:  Types of chemical waste (solid, liquid and gas waste), classification of sewage contaminated waters, analytical procedures of chemical waste, policy and constitution regarding chemical waste pollution  Study/exam achievements:  Student are considered to be competent and pass if at least get 50% of maximum mark of the exams based learning.  Final score (NA) is calculated as follow:  40% Exam II + 20% Assignment	Module Level:	
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A: 100 > NA > 75		A: 100 > NA > 75
AB: 75 > NA > 70		AB: 75 > NA > 70
B:70 > NA > 65		B:70 > NA > 65
BC: $65 > NA > 60$		BC: 65 > NA > 60
C: 60 > NA > 55		
D: 55 > NA > 50		D: 55 > NA > 50

	E: 50 < NA
Forms of Media:	Slides, LCD projector, internet, whiteboard.
Literature:	1. Environmental Chemistry, 1980, Parker, S.P. et al.
	Mc Graw- Hill Book Company, New York.
	2. Water Quality In Warmwater Fish Ponds, 1989; Boyd.
	C.e; Auburn University Alabama Press.
Notes:	The course is more comprehensive of chemistry in
	environmental field than basic chemistry.