

Module Handbook

Module Name:	Environmental Chemistry
Module Level:	Bachelor
Abbreviation, if applicable:	LKK301
Sub-heading, if applicable:	
Courses included in the module, if applicable:	
Semester/term:	1 / Fourth year
Module coordinator(s):	Prof. Dr. Muhamad Zainuddin, Apt.
Lecturer(s):	Prof. Dr. Muhamad Zainuddin, Apt. Prof. Dr. Sugianto, Apt.
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course /Elective Studies
Teaching format/class hours per week during the semester:	50 minutes lectures, 13 lecture classes/semester
Workload:	Total 11 hours a semester
Credit Points:	1
Requirements:	Students must have taken Pharmaceutical Analysis I (KIA206) and Pharmaceutical Analysis II (KIA307) courses.
Learning goal/competencies:	<p>Knowledge</p> <ul style="list-style-type: none"> - To understand the effect of organic and anorganic chemical compounds to environment. <p>Skills</p> <ul style="list-style-type: none"> - Discipline, honesty, and attentive. <p>Competence</p> <ul style="list-style-type: none"> - To understand and able to explain the effect of organic and anorganic chemical compounds to environment. - To understand and able to apply the concept of 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 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:	<p>Student are considered to be competent and pass if at least get 50% of maximum mark of the exams based learning.</p> <p>Final score is calculated as follow :</p> <p>40% Exam I + 40% Exam II + 20% Assignment</p> <p>Final index is defined as follow :</p> <p>A : ≥ 75 AB : 70 – 74,9 B : 65 – 69,9 BC : 60 – 64,9 C : 55 – 59,9 D : 40 – 54,9</p>

	E : <40
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.