

Module Handbook

Module Name:	Environment Chemistry
Module Level:	Bachelor
Abbreviation, if applicable:	LKK 301
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	Physical Chemistry, Analytical Chemistry, Organic Chemistry
Semester/term:	5 th / Third year
Module coordinator(s):	Dr. Ganden Supriyanto
Lecturer(s):	A Budi Prasetyo, Drs., MT
Language:	Bahasa Indonesia
Classification within the curriculum	Elective course
Teaching format / class hours per week during semester:	2 hours lectures (50 min / hour)
Workload:	2 hours lecture, 2 hours structured activities, 2 hours individual activities , 16 weeks per semester, and total 78 hours per semester ~2.6 ECTS *
Credit Points:	2
Requirements:	Physical Chemistry (KIF 201), Analytical Chemistry II (KIA 203)
Learning goals/competencies:	<p>General competence (Knowledge) :</p> <ul style="list-style-type: none"> - Expected to analyze issues in environmental chemistry related to needs, quality, water pollution, management and sampling, recycling chemistry, fundamentals of water treatment, chemical reactions in the atmosphere, the analysis of organic and inorganic pollutants in the atmosphere, global issues of lingkungan which in turn can be applied as intended. - Can understand the concept of Environmental Chemistry of water, soil and the atmosphere. - Can understand the concept of environmental management that includes mamajemen environment and environmental engineering - Can understand the chemical reactions in the environment of water, soil and the atmosphere. <p>Specific Competence:</p> <ol style="list-style-type: none"> 1. Analyze and calculate requirements, quality and water pollution. 2. Analyze management and environmental sampling. 3. Analyzing the biogeochemical cycle. 4. Analyze and calculate the fundamentals of wastewater treatment. 5. analyzed the properties of the atmosphere and chemical reactions in the atmosphere. 6. Analyze pollutants organic and inorganic pollutants in the atmosphere. 7. Analyze and calculate pollutant-organic and inorganic pollutants in the atmosphere 8. Analyze global issues in an atmospheric environment.

Content:	This course is delivered face-to-face and discuss about the understanding of environmental chemicals include: requirements, quality and water pollution, management and sampling, biogeochemical cycle, the fundamentals of wastewater treatment, the properties of the atmosphere and the chemical reactions that accompany, pollutants organic and inorganic pollutants in the atmosphere and global issues.
Attribut soft skill	Discipline and team work
Study/exam achievements:	<p>Students are considered to be competent and pass if at least get 55 of maximal result from Middle examination and final examination.</p> <p>Final score (NA) is calculated as follow : 40% UTS (middle exam)and 40 % UAS (final exam)also assignment 20%</p> <p>Final index is defined as follow:</p> <p>A : 75 - 100 AB : 70 - 74.99 B : 65 - 69.99 BC : 60 - 64.99 C : 55 - 59.99 D : 40 - 54.99 E: 0 - 39.99</p>
Forms of Media:	LCD Projectors, White Board
Learning Methods	Lectures and discussion
Literature:	<ol style="list-style-type: none"> 1. Manahan, SE., 1977, <i>Environmental Chemistry</i>, Willard Grani Press, Boston, Masseurhusetts. 2. Murbandono HS, L., 1999, <i>Membuat Pupuk Kompis</i>, PT. Penebar Swadaya, Cimanggis, Bogor. 3. Sutejo, Mul Mulyani, 1999, <i>Pupuk dan Cara Pemupukan</i>, PT. Rineka Cipta, Jakarta
Notes:	<p>Environmental chemistry courses provide a foundation for students to develop interest management and environmental engineering.</p> <p>*Total ECTS = {(total hours workload x 50 min) / 60 min } / 25 hours Each ECTS is equals with 25 hours</p>