MODULE HANDBOOK

Module Name	Environmental Chemistry
Module level	Bachelor
Abbreviation, if applicable	
Sub-heading, if applicable	-
Course included in the module, if applicable	-
Semester/term	7th semester
Module coordinator(s)	Prof. Dr. Suyono, M.Pd
Lecturer(s)	Prof. Dr. Suyono, M.Pd Dr. Amaria, M.Si Dina Kartika Maharani, M.Sc Rusmini S.Pd, M.Si
Language	Indonesian
Classification within the curriculum	compulsory course
Teaching format/class hours per week during the semester:	3 hours lecturers (50 min per hours)
Workload:	1 CU for bachelor degree equals to 3 workhours per week or 170 minutes (50' face to face learning, 60' structured learning, and 60' independent learning). In one semester, courses are conducted in 14 weeks (excluding mid and end-term exam). Thus, 1 CU equals to 39.67 workhours per semester. One CU equals to 1.59 ECTS.
Credit points:	3 x 1.59 = 4,77 ECTS
Prerequisites course(s):	Instrumental Analysis, Organic Chemistry 3, Inorganic Chemistry 3
Targeted learning outcomes:	1. Students have knowledge about the sources, reactions, displacement, effects, and changes of chemical species in the air, water and soil, the reciprocal effect of human activities on all of these, and Environmental Impact Analysis (AMDAL) 2. Students are skilled at using tools in conducting experiments on water quality parameters from the environment 3. Students have the ability to cooperate and are responsible for discussing knowledge about 1) sources, reactions, displacement, effects, and changes in chemical species in air, water and soil, 2) The reciprocal influence of human activities on all the so-called in no.1 and 3) Environmental impact analysis (AMDAL) 4. Students have the ability to communicate knowledge about 1) sources, reactions, displacement, effects, and changes in chemical species in the air, water and soil, 2) The reciprocal influence of human activities on all those mentioned in no. 1 and 3) Environmental impact analysis (AMDAL)

Content:	water pollutant soil pollutant air pollutant amdal (Environmental Impact Analysis)
Study / exam achievements:	Students are considered to be competent and pass if at least get 55 Final score is calculated as follows: 20% participation + 30% assignment + 20% middle exam (UTS) & 30% final exam (UAS) Table index of graduation • A = 4 (85 ≤-≥ 100) • A- = 3,75 (80 ≤-< 85) • B+ = 3,5 (75 ≤- < 80) • B = 3 (70 ≤-< 75) • B- = 2,75 (65 ≤-<75) • C+ = 2,5 (60 ≤-<65) • C = 2 (55 ≤-<60) • D = 1 (40 ≤-<55) • E = 0 (0 ≤-<40)
Media:	Computer, LCD, White board, laboratory, book, practicum guide book, wastewater treatment plant
Learning Methods	Individuals assignment, group assignment, discussion, presentation, practicum, observation, project based learning
Literature:	1. De, anil Kumar. 1987. *Environmental Chemistry*. India: Willey Eastern Limited. 2. Faust, S.D and Aly, O.M.1981. *Chemistry of Natural Water*. London: Ann Arbor Science. 3. Manahan, S.E. 1994. *Environmental Chemistry*. London: Lewis Publishers CRC Pres.Inc 4. More,J.W. and More,E.A.,1976. *Environmental Chemistry*. New York: Academic Press. 5. Radojevic, Miroslav and Bashkin, Vladimir N, 1999, *Practical Environmental Analysis*, Cambridge : Royal Society of Chemistry 6. Appropriate scientific articles
Note	Environmental chemistry covers the activities of theory, practicum, presentation, project, and observation