MODULE HANDBOOK

Module Name	Chemical Environment
Module level	Bachelor
Abbreviation, if applicable	
Sub-heading, if applicable	-
Course included in the module, if applicable	-
Semester/term	7th/Fourth year
Module coordinator(s)	Prof. Dr. Suyono, M.Pd
Lecturer(s)	Prof. Dr. Suyono, M.Pd, Dr. Amaria, M.Si. Rusmini S.Pd, M.Si, Dina Kartika Maharani S.Si, M.Sc
Language	Bahasa Indonesia
Classification within the curriculum	Optional
Teaching format/class hours per week during the semester:	3 hours lectures (50 min / hour)
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 CU = 3 x 1.59 = 4.77 ECTS
Prerequisites course(s):	-
Targeted learning outcomes:	1. Students have knowledge about the sources, reactions, displacement, effects, and changes of chemical species in air, water and soil, the reciprocal effect of human activities on all those mentioned, and an analysis of environmental impacts (Amdal) 2. Students are skilled at using tools in experimenting with water quality parameters from the environment 3. Students have the ability to work together 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 effect of human activities on all the so-called on 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 air, water and soil, 2) The reciprocal effect of human activities on everything mentioned in no. 1 and 3) Environmental impact analysis (Amdal)
Content:	1. Sources, reactions, displacement, effects, and changes in chemical species in air, water and soil,

	2. The reciprocal effect of human activities on all the so-called on no.1 and 3) 3. Environmental impact analysis (Amdal)
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
Learning Methods	Individuals assignment, group assignment, discussion, presentation, and practicum
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