MODULE HANDBOOK

Module Name	Surface Chemistry (Physical Chemistry IV)
Module Level	Bachelor
Abbreviation, if applicable	KF IV
Sub-heading, if applicable	
Course included in the module, if applicable	
Semester/term	5th or 6th third year
Module coordinator(s)	Prof. Dr. Harun Nasrudin, M.S.
Lecturer(s)	Bertha Yonata, M.Pd.
Language	Indonesian
Classification within the curriculum	Compulsory
Teaching format/class hours per week during the semester	3 hours lectures (50 min/hour)
Workload	3 hours lecture, 3hours structured activities, 3 hours individual activities, 13 week a semester, and total 117 hours a semester ~4.77 ECTS
Credit Point	3 SCU (3 X 1.59 = 4.77 ECTS)
Requirement	Physical Chemistry III
Learning Outcome	Students have the ability to communicate the results of viscosity, surface tension, adsorption, and colloidal analysis so that they are able to develop a conceptual framework for formulating actions or alternative actions in solving chemical problems in life. Students are skilled in using tools in analyzing viscosity, surface tension, adsorption, and colloids. Students have knowledge of the surface characteristics of capillary symptoms, surface thermodynamics, adsorption, surfactants, detergents, emulsions, bases and aerosols, chemisorption and catalysts. Students have the ability to collaborate and are responsible for designing, implementing and reporting the results of experiments on viscosity, surface tension, adsorption, and colloids.
Content	Study of the surface characteristics of capillary symptoms, surface thermodynamics, adsorption, surfactants, detergents, emulsions, bases and aerosols, chemisorption and catalysts
Study/Exam Achievement	Students are considered to be competent and pass if at least get 56 Final score is calculated as follows: 30% assignment, 20% middle exam (UTS) & 30% final exam (UAS) Table index of graduation

	0 - 39.99 E, 40 - 54.99 D, 55 - 59.99 C, 60 - 64.99 C+, 65 - 69.99 B-, 70 - 74.99 B, 75 - 79.99 B+, 80 - 84.99 A-, 85 - 100 A.
Media	Computer, LCD, White board, laboratory instruments
Learning Methods	Lectures, discussion, assignment, laboratory activity
Literature	Duncan J.S. 2004. Introduction to Colloid and Surface Chemistry. Butter Worths Adamson dan Gost AP, 1977, Physical Chemistry of Surfaces 6th ed. New York: Willey Inter Science.
Note	Total ECTS = {(total hours workload x 50 min) / 60 min } / 25 hours Each ECTS is equals with 25 hours