

MODULE DESCRIPTION

Module designation	Surface Chemistry
Semester(s) in which the module is taught	8 th semester/ 4 th year
Person responsible for the module	Dr. Dian Novita, S.T., M.Pd.
Language	Indonesian (Regular Class) English (International Class)
Relation to curriculum	Compulsory Course
Teaching methods	Project based learning with practicum laboratory 2 workhours per week (2 x 170 minutes per week)
Workload:	1 CU for a bachelor's degree equals 170 minutes (50 minutes face-to-face, 60 minutes structured, 60 minutes independent learning) per week × 14 weeks, excluding mid and end-term exams. = 39.67 work hours per semester = 1.587 ECTS.
Credit points:	2 Credit Units (CU) = 3.18 ECTS
Requirements according to the examination regulations	-
Recommended prerequisites	-
Module objectives/ Intended Learning Outcomes	<ol style="list-style-type: none"> 1 Students have the ability to communicate the results of experiments on viscosity, surface tension, adsorption, and colloid analysis so that they are able to develop a conceptual framework to formulate actions or alternative actions in solving chemical problems in life. 2 Students are skilled at using tools to analyze viscosity, surface tension, adsorption, and colloids. 3 Students have knowledge of surface characteristics of capillary phenomena, surface thermodynamics, adsorption, surfactants, detergents, emulsions, bases and aerosols, chemisorption, and catalysts. 4 Students have the ability to collaborate and be responsible in designing, implementing, and reporting the results of experiments on viscosity, surface tension, adsorption, and colloids.
Content:	Study of surface properties of capillary phenomena, surface thermodynamics, adsorption, surfactants, detergents, emulsions, bases and aerosols, chemisorption and catalysts
Study and examination requirements and forms of examination	Assessment Recap: <ol style="list-style-type: none"> 1. Participatory Activities: 10% 2. Portfolio: 15% 3. Test: 20% 4. Project: 40%

	5. Practicum laboratory: 15% Total: 100%
Reading list	1 Duncan J.S. 2004. Introduction to Colloid and Surface Chemistry . New York: Butter Worths. 2 Adamson and Gost AP. 1977. Physical Chemistry of Surfaces 6th ed. New York : Willey Inter Science