

Module Descriptions

Module designation	Chemistry Learning for Vocational School
Semester(s) in which the module is taught	8 th /Fourth Year
Person responsible for the module	Prof. Dr. Achmad Lutfi, M.Pd.
Language	Bahasa Indonesia (Regular Class) Bahasa Inggris (Internasional Class)
Relation to curriculum	Elective course
Teaching methods	Project-Based Learning, 2 workhours per week (2 x 170 minutes per week)
Workload (incl. contact hours, self-study hours)	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
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	Upon successful completion of this module, students are expected to: <ol style="list-style-type: none"> 1. develop oneself sustainably and collaborate 2. able to demonstrate chemical pedagogical knowledge about designing, implementing, and evaluating chemistry learning
Content	a study of chemistry learning in vocational schools which includes the characteristics of chemistry, chemistry teaching materials, and chemistry learning strategies in vocational schools through literature review, project assignments and discussions
Examination forms	Essay and Oral Presentation
Study and examination requirements	<p>Study and Examination Requirements/Forms of Examination:</p> <ol style="list-style-type: none"> 1. Individual assignments (literature review, analysis) 2. Group assignments / project work (identifying misconceptions, proposing solutions) 3. Discussions and Q&A participation 4. Presentations and project documentation <p>Assessment Recap (Project-Based Learning):</p> <ol style="list-style-type: none"> 1. Participatory Activities: 27% 2. Project/Product Assessment: 53% 3. Practice/Performance: 20% <p>Total: 100%</p>
Reading list	<ol style="list-style-type: none"> 1. 2006 and 2013 vocational school curriculum 2. Lutfi, Achmad. 2004. Pencemaran Lingkungan. Jakarta : Direktorat Pendidikan Kejuruan Direktorat Jend. Pendidikan Dasar dan Menengah Depdikbud 3. Lutfi, Achmad. 2004. Kimia Lingkungan. Jakarta : Direktorat Pendidikan Kejuruan Direktorat Jend. Pendidikan Dasar dan Menengah Depdikbud

