

MODULE DESCRIPTION

Module Title	Laboratory Organization
Semester(s) in which the module is taught	1 st /First Year
Person responsible for the module	Prof. Dr. Harun Nasrudin, M.S.
Language	Bahasa Indonesia (Regular Class) Bahasa Inggris (Internasional Class)
Relation to curriculum	Compulsory course
Teaching Methods	Project Team Method
Classification within the curriculum	Compulsory Course
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	<p>Knowledge:</p> <ol style="list-style-type: none"> 1. General Competency Achievement: Able to apply logical, critical, systematic and innovative thinking in the context of developing or implementing science and technology that pays attention to and applies humanitarian values. 2. Special Competency Achievements: Able to produce accurate conclusions based on the results of the identification that has been carried out and able to apply educational, research and management skills in the implementation of chemistry education. 3. Achievement of Knowledge Field Competencies: Mastering theoretical concepts (knowledge) about the function and role of chemical education laboratories, the basics of planning the construction of chemical laboratories, as well as the management of procurement of chemical laboratory equipment and materials as well as the principles of K3 (Occupational Safety and Security) and laboratory management. 4. Attitude competency achievement: Having a responsible attitude by applying understanding of laboratory

	organization material in carrying out daily lectures and practicals as well as future tasks.																														
Content:	A study of the function and role of the Chemistry Education Laboratory, planning, construction, and management of the Laboratory, procurement and management of equipment and materials, management of hazardous and toxic materials (B3), Occupational Safety and Security (K3) in the Laboratory, fire prevention, solution preparation, and assessment of laboratory activities. The study is conducted through discussions, demonstrations, laboratory practice, and presentations.																														
Examination forms	Individuals assignment, group assignment, discussion, presentation, and project																														
Study and examination requirements	<p>Students are considered competent and pass if they get at least a maximum test score of 68 (UTS and UAS), and structured activities (assignments / T) and participatory activities (P)</p> <p>The final grade (NA) is calculated according to the formula: $NA = \frac{(2 \times P) + (3 \times T) + (2 \times USS) + (3 \times US)}{10}$ </p> <p>Convert the 0-100 scale value to a 0-4 scale and the letters are arranged as follows.</p> <table border="1" data-bbox="619 1041 1382 1422"> <thead> <tr> <th>Letter</th> <th>Number</th> <th>Interval</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>4,00</td> <td>85 ≤ A < 100</td> </tr> <tr> <td>A-</td> <td>3,75</td> <td>80 ≤ A- < 85</td> </tr> <tr> <td>B+</td> <td>3,50</td> <td>75 ≤ B+ < 80</td> </tr> <tr> <td>B</td> <td>3,00</td> <td>70 ≤ B < 75</td> </tr> <tr> <td>B-</td> <td>2,75</td> <td>65 ≤ B- < 70</td> </tr> <tr> <td>C+</td> <td>2,50</td> <td>60 ≤ C+ < 65</td> </tr> <tr> <td>C</td> <td>2,00</td> <td>55 ≤ C < 60</td> </tr> <tr> <td>D</td> <td>1,00</td> <td>40 ≤ D < 55</td> </tr> <tr> <td>E</td> <td>0,00</td> <td>0 ≤ E < 40</td> </tr> </tbody> </table>	Letter	Number	Interval	A	4,00	85 ≤ A < 100	A-	3,75	80 ≤ A- < 85	B+	3,50	75 ≤ B+ < 80	B	3,00	70 ≤ B < 75	B-	2,75	65 ≤ B- < 70	C+	2,50	60 ≤ C+ < 65	C	2,00	55 ≤ C < 60	D	1,00	40 ≤ D < 55	E	0,00	0 ≤ E < 40
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Reading list	<p>Mitarlis, Azizah U, Amaria, 2016. Organisasi dan Manajemen Laboratorium Pendidikan Kimia . Surabaya: Unesa University Press.</p> <p>Cahyono, A.B. 2004. Keselamatan Kerja Bahan Kimia di Industri. Yogyakarta: Gajahmada University Press.</p> <p>Kumpulan Makalah Seminar. 2003. Safety and Waste Analysis in the Laboratory . PT. Merck Tbk. Chemical Division Surabaya.</p>																														