MODULE HANDBOOK

Modul Name	Laboratory Organization
Module Level	Bachelor
Abbreviation, if applicable	3074213023
Sub-heading, if applicable	-
Course included in the module, if applicable	-
Semester/term	3rd/ second year
Modul coordinator(s)	Dr. Utiya Azizah, M.Pd.
Lecturer(s)	Dr. Nuniek Herdyastuti, M.Si. Dr. Utiya Azizah, M.Pd. Dr. Mitarlis, S.Pd., M.Si. Dr. Muchlis, M.Pd.
Language	Indonesian
Classification within the curriculum	Compulsory Course
Teaching format/class hours per week during the semester	3 hours lectures (50 min / hour)
Workload	3 x 50 minutes lectures, 3 x 60 minutes structured activity, 3 x 60 minutes individual activity, 14 weeks per semester, 119 total hours per semester ~ 4.77 ECTS**
Credit point	3 CU x 1.59 = 4.77 ECTS
Prerequisite course(s)	-
Targeted learning outcomes:	CLO 1 Students have ability to apply logical, critical, systematic and innovative thinking in the context of developing or implementing science and technology that pays attention to and applies humanities values. CLO 2 Students have ability to produce correct conclusions based on the results of identification that have been made and be able to apply skills in educating, researching, and managing in the administration of chemistry education. CLO 3 Students be able to master the theoretical concepts (knowledge) about the functions and roles of chemical education laboratories, the basics of chemical laboratory development planning, and management of chemical laboratory equipment and materials procurement as well as the principles of K3 (Occupational Health and Safety) and laboratory management. CLO 4 Students have a responsible attitude by applying an understanding of laboratory organization material in carrying out lectures and daily practicum and assignments on the field in the future.
Content:	1. Introduction: Definition of organization and

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<tr><td></td><td>management, the nature of learning science, laboratory functions and roles, types of laboratories.
2. Planning, development and laboratory management.
3. Procurement and management of equipment and materials,
4. Works safety and its management in the laboratory,
5. Handling of hazardous and toxic materials (B3),
6. Fire and how to handle it,
7. Preparation of solutions,
8. Assessment of activities in the laboratory.</td></tr>
<tr><td>Study/exam achievements</td><td>Students are considered to complete the course and pass if they obtain at least 40% of maximum final grade. The final grade (NA) is calculated based on the following ratio:
<table>
<tr><th>Assessment Components</th><th>Percentage of contribution</th></tr>
<tr><td>Participation</td><td>20%</td></tr>
<tr><td>Assignment</td><td>30%</td></tr>
<tr><td>Mid-semester test</td><td>20%</td></tr>
<tr><td>Final semester test</td><td>30%</td></tr>
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<tr><td>Media:</td><td>Computer, LCD, White board, chemicals and equipment in laboratory for doing practicum</td></tr>
<tr><td>Learning Methods</td><td>Individuals assignment, group assignment, discussion, presentation, and practicum</td></tr>
<tr><td>Literature:</td><td>1. Mitarlis, Azizah U, Amaria, 2016. Organisasi dan Manajemen Laboratorium Pendidikan Kimia. Surabaya: Unesa University Press.
2. Cahyono, A.B. 2004. Keselamatan Kerja Bahan Kimia di Industri. Yogyakarta: Gajahmada University Press.
3. Kumpulan Makalah Seminar. 2003. Safety and Waste Analysis in the Laboratory. PT. Merck Tbk. Chemical Division Surabaya</td></tr>
<tr><td rowspan="2">Notes:</td><td>*1 CU in learning process = three periods consist of: (a) scheduled instruction in a classroom or laboratory (50 minutes); (b) structured activity (60 minutes); and (c) individual activity (60 minutes) according to the Regulation of Indonesia Ministry of Research, Technology, and Higher Education No. 44 Year 2015 jo. the Regulation of Indonesia Ministry of Research, Technology, and Higher Education No. 50 Year 2018.</td></tr>
<tr><td>**1 CU = 1.59 ECTS according to Rector Decree Of Universitas Negeri Surabaya No. 598/UN38/Hk/Ak/2019</td></tr>
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