

MODULE HANDBOOK

Module Name	Research Methodology
Module level	Bachelor
Abbreviation, if applicable	3074213047
Sub-heading, if applicable	-
Course included in the module, if applicable	-
Semester/term	6 th /First Year
Module coordinator(s)	Prof. Dr. Tukiran, M.Si.
Lecturer(s)	Prof. Dr. Tukiran, M.Si., Prof. Dr. Leny Yuanita M.Kes., and Prof. Dr. Suyono, M.Pd.
Language	Indonesian
Classification within the curriculum	Compulsory Course
Teaching format/class hours per week during the semester	3 hours lecturers (50 min per hours)
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 points	3 CU x 1.59 = 4.77 ECTS)
Prerequisites course(s)	Basic Statistics and Literature of Chemistry
Targeted learning outcomes	<p>CLO 1. Able to use the concept of scientific paradigm (scientific method) in building plans and designs for solving chemical problems and developing chemistry.</p> <p>CLO 2. Able to describe the basic principles of the scientific method in building plans and designs for solving chemistry problems and the development of chemistry.</p> <p>CLO 3. Mastering the basic concepts of scientific paradigm (scientific method) in building plans and designs for solving chemical problems and developing chemistry.</p> <p>CLO 4. Make decisions based on the results of analysis and studies of scientific methods in developing plans and designs for solving chemical problems and developing chemical science.</p> <p>CLO 5. Have a responsible attitude in building plans and designs for solving chemical problems and the development of chemistry.</p>
Contents	<ol style="list-style-type: none"> 1. Scientific method, 2. Rules in research, 3. Problems and research hypotheses, 4. Methods of reviewing literature, 5. Variables in research, 6. Methods of writing operational definitions of variables, 7. Techniques for identifying, manipulating, and controlling research variables, 8. Research design, 9. Data collection procedures , 10. Data analysis and processing,

	<p>11. report preparation guidelines, and</p> <p>12. implementation of scientific paradigm (scientific method) in solving chemical problems and developing chemistry.</p>										
Study/exam achievements	<p>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:</p> <table border="1"> <thead> <tr> <th>Assessment Components</th> <th>Percentage of contribution</th> </tr> </thead> <tbody> <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> </tbody> </table>	Assessment Components	Percentage of contribution	Participation	20%	Assignment	30%	Mid-semester test	20%	Final semester test	30%
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Final semester test	30%										
Media (Learning sources)	Computer, LCD, White board, PPT, and books										
Learning Methods	Individuals assignment, group assignment, discussion, Presentation.										
Literature	<ol style="list-style-type: none"> 1. Tuckman, Bruce. W. 1978. <i>Conducting Educational Research</i>. Second Edition. Toronto: Harcourt Brace Jovanovich, Publishers. 2. Zinuddin, M. 2001. <i>Metodologi Penelitian</i>. Surabaya: Airlangga University Press. 3. Some articles of Journal related to the field of Chemistry 										
Notes:	<p>*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.</p> <p>**1 CU = 1,59 ECTS according to Rector Decree Of Universitas Negeri Surabaya No. 598/Un38/Hk/Ak/2019</p>										