



UNIVERSITAS NEGERI YOGYAKARTA

FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF SCIENCE EDUCATION

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Bachelor of Education in Science

MODULE HANDBOOK

Module name:	Management & Technique of Science's Laboratory
Module level,ifapplicable:	Undergraduate
Code:	IPA6203
Sub-heading,ifapplicable:	-
Classes,ifapplicable:	-
Semester:	3 rd
Module coordinator:	Ir. Ekosari Roektingroem, MP.
Lecturer(s):	Ir. Ekosari Roektingroem, MP. & cs.
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course
Teaching format / class hoursperweekduring the semester:	100 minutes lectures and 120 minutes structured activities per week.
Workload:	Total workload is 90,67 hours per semester which consists of 100 minutes lectures, 120 minutes structured activities, and 120 minutes individual study per week for 16 weeks.
Credit points:	2
Prerequisites course(s):	General Biology 2 nd (IPA6206), Basic Physic (IPA6208), & Basic Chemistry (IPA6210)
Targeted learning outcomes:	After taking take this course the students will have ability to 1. implementing laboratory management of science's laboratory for middle school 2. implementing and using/utilizationing of the techniques and tools used in the activity of science's laboratory for middle school
Content:	This course discusses and develops competencies in: 1. Aspects of the management science laboratory which includes

	<p>administration and inventory, structuring and handling of tools, materials and waste, laboratory safety; 2. Aspects of the design of laboratory science, which includes the design and layout of the building laboratories, designing tools and materials need to work in the laboratory, as well as budgeting, preparing personnel /organizational structure of the laboratory; and 3. Aspects of the science's laboratory techniques that include the use of technique of tools and equipment (Sciences-KIT for Middle School, triple beam balance, hygrometer, microscopes, multimeters etc.), preparation techniques and the manufacture of preserved specimens, and the technique of making solutions and dilution.</p>																					
<p>Study/exam achievements:</p>	<p>Attitude assessment is carried out at each meeting by observation and / or self-assessment techniques using the assumption that basically every student has a good attitude. The student is given a value of very good or not good attitude if they show it significantly compared to other students in general. The result of attitude assessment is not a component of the final grades, but as one of the requirements to pass the course. Students will pass from this course if at least have a good attitude.</p> <p>The final mark for each LO will be weight as follow:</p> <table border="1" data-bbox="621 1058 1395 1341"> <thead> <tr> <th>No</th> <th>CO</th> <th>Assessment Object</th> <th>Assessment Technique</th> <th>Weight</th> </tr> </thead> <tbody> <tr> <td rowspan="4">1</td> <td rowspan="2">CO1, CO2, CO3</td> <td>a. Individual Assignment</td> <td rowspan="4">Presentation / written test</td> <td>15%</td> </tr> <tr> <td>b. Group Assignment</td> <td>15%</td> </tr> <tr> <td>c. Mid</td> <td>25%</td> </tr> <tr> <td>d. Final Exam</td> <td>30%</td> </tr> <tr> <td colspan="4">Total</td> <td>100%</td> </tr> </tbody> </table>	No	CO	Assessment Object	Assessment Technique	Weight	1	CO1, CO2, CO3	a. Individual Assignment	Presentation / written test	15%	b. Group Assignment	15%	c. Mid	25%	d. Final Exam	30%	Total				100%
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<p>Forms of media:</p>	<p>Board, LCD Projector, Laptop/Computer</p>																					
<p>Literature:</p>	<p>A. Compulsory</p> <ol style="list-style-type: none"> 1. Amien, Moh. (1988). Buku Pedoman Laboratorium dan Petunjuk Praktikum Pendidikan IPA Umum untuk Lembaga Pendidikan Tenaga Kependidikan. Jakarta: P2LPTK Depdikbud.. 2. Indrawati. 2008. Penataan dan Pengadministrasian Alat dan Bahan Laboratorium Kimia 3. Koesmadji W., Yusuf H.A, Bambang Supriatno, dan Riandi. 2004. Teknik Laboratorium. Common Textbook.. Bandung: Technical Cooperation Project for Dev.of Sience & Mathematics Teaching for Primary & Secondary Education in Indonesia (IMSTEP). 4. Refirman dan Rosminar Suna. 1995. Disain, Perlengkapan dan Tata Ruang Laboratorium IPA dalam Pengelolaan Laboratorium IPA. Jakarta: Depdikbud Dirjen Dikdasmen. <p>Recommendations</p>																					

