

## MODULE HANDBOOK

BASIC NATURAL SCIENCE					
Module/Course Title <b>8720202000</b>	Student Workload <b>2 CU X 16 X 170'= 90,5664</b>	Credits <b>2 CU / 3.18 ECTS</b>	Semester <b>1</b>	Frequency <b>ONCE SEMESTER</b>	Duration <b>1 SEMESTER</b>
1	<b>Types of courses</b> LECTURES	<b>Contact hours</b>  (2CU X 1,59 ECTS)  X{(50:170')X  28,51  Workhours=  26,64	<b>Independent Study</b>  (2CU X 1,59 ECTS)  X{(60:170')X  28,51  Workhours=  31,96	<b>Structured Study</b>  (2CU X 1,59 ECTS)  X{(60:170')X  28,51  Workhours=  31,96	<b>Class size</b>  MAX 45 STUDENT
2	<b>Prerequisites for participation (if applicable)</b> -				
3	<b>Program Learning outcomes</b>				
	<p>PLO-1 Able to analyze the characteristics of students, the characteristics of the material (content knowledge), plan, evaluate/assess, and arrange follow-ups in innovative Geography learning by utilizing various science and technology-based learning resources</p>				
	<p>PLO-6 Able to make appropriate decisions in the context of solving problems in the field of geography and geography education, based on the results of the analysis of information and data</p>				
	<p>PLO-7 Able to plan, implement, evaluate/assess, and arrange follow-up in Geography learning by utilizing various science and technology-based learning resources</p>				
	<p>PLO-10 Applying values, norms, and academic ethics</p>				
	<b>Course Learning Outcome (CLO)</b>				
	<p>CLO-1 Able to process, analyze, present regional data and information related to transportation problems using geospatial technology for geography learning and research</p>				
	<p>CLO-6 Able to apply regional and environmental theory in the analysis of transportation problems in supporting regional development in a sustainable manner</p>				

	<p>CLO-7 Able to plan, implement, evaluate/assess, and arrange follow-up in Geography learning by utilizing various science and technology-based learning resources</p> <p>CLO-10 Demonstrate a responsible attitude towards traffic survey planning , observation , calculation and analysis of traffic survey results</p>
4	<p>Learning materials</p> <ol style="list-style-type: none"> <li>1. The nature of the human mind and its development</li> <li>2. Development and development of Science</li> <li>3. The earth and the universe</li> <li>4. The diversity of living things and their distribution</li> <li>5. Living things in the ecosystem</li> <li>6. Natural resources and the environment</li> <li>7. Natural science and technology for human life</li> <li>8. - development of biotechnology</li> <li>9. - sources, countermeasures, and side effects of environmental pollution</li> </ol>
5	<p><b>Teaching methods</b> <i>Project Base Learning</i></p>
6	<p><b>Assessment methods</b> <i>paper test</i></p>
7	<p><b>This module/course is used in the following study programme/s as well</b> -</p>
8	<p><b>Responsibility for module/course</b> COMPULSORY/ELECTIVE*/</p>
9	<ol style="list-style-type: none"> <li>1. TIM FMIPA. 2013. <i>Sains Dasar</i>. Surabaya : Unipress IKIP Surabaya.</li> <li>2. Ahmadi Abu dan Supatmo A. 1998. <i>Ilmu Alamiah Dasar</i>. Rineka cipta.</li> <li>3. Harmoni, Ati. 1992. <i>Ilmu Alamiah Dasar</i>. Gunadarma.</li> </ol>