

**PROGRAM PLAN AND  
SEMESTER LEARNING  
ACTIVITIES  
(RPKPS)  
SCHOOL YEAR  
2021/2022**



Geophysics Basic  
Geology Practicum  
MFG-1105/ 1 Credits

Supervisory Team:  
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**GADJAH MADA UNIVERSITY  
FACULTY OF MATHEMATICS  
AND NATURAL SCIENCES  
2021**



**Gadjah Mada University**  
 Faculty of Mathematics and Natural Sciences  
 Department of Physics / S1 Geophysics Study  
 Program Academic Year 2021/2022


**Document Code:**

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**SEMESTER LEARNING PROGRAM AND ACTIVITY PLAN (RPKPS)**

Course Code	Course Name	Weight (credit)		Semester	Course Status	Prerequisite Courses																
MFG-1105	Basic Geology	T: 2	P:-	Complete	Mandatory	-																
<b>Course Brief Description</b>	The Basic Geology Practicum aims to develop observation skills, and an understanding of geological features and processes for students. Practicum in the laboratory emphasizes the study of data and observation. Field trips, <i>for example in the Kulonprogo area, are designed to introduce students to field observations of geological features.</i>																					
<b>Graduate Learning Outcomes (CPL) Charged to MK</b>	<b>CPL-1</b>	<b>Good Attitude:</b> Graduates are honest, disciplined, curious, critical, confident, independent, emotionally mature, cooperative, and trustworthy. Uphold norms, values, morals, religion, general ethics and professional ethics, and actively play a role in the global movement of sustainable development and behave professionally.																				
	<b>CPL-2</b>	<b>Mastery of general knowledge:</b> Graduates are able to apply basic science (mathematics, physics, chemistry, biology, geology), and geophysics in general and their relationship with other sciences such as geology, geodesy, geochemistry, geography, computing and information technology.																				
	<b>CPL3</b>	<b>Operational and comprehensive skills:</b> Graduates are able to apply all geophysical methods (seismic, gravitational, magnetic, electrical, electromagnetic, and thermic methods) for energy exploration (e.g. oil and gas, coal, geothermal), mining materials (eg: iron, copper, gold, silver, tin) as well as groundwater and disaster mitigation																				
<b>Course Learning Outcomes (CPMK)</b>	<b>After completing the learning of this course, students are expected to be able to:</b>																					
	<b>CPMK-1</b>	Students have a disciplined and active nature [CPL-1]																				
	<b>CPMK-2</b>	Students know and are able to read topographic maps, understand the basic concepts of geomorphology and geological structure [CPL-2]																				
	<b>CPMK-3</b>	Students understand the basic concepts of geochronology, can use geological tools, and can read geological maps [CPL-3]																				
<b>CPL mapping with CPMK</b>	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>CPMK-1</th> <th>CPMK-2</th> <th>CPMK-3</th> </tr> </thead> <tbody> <tr> <td>CPL-1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CPL-2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CPL-3</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>							CPMK-1	CPMK-2	CPMK-3	CPL-1				CPL-2				CPL-3			
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<b>The Relationship of CPMK with</b>	<b>Learning Materials</b>		<b>Forms of Learning</b>		<b>Time Allocation</b>																	

<b>Material and Form Learning, and Time Allocation</b>	<i>CPMK-1</i>	Introduction	Project based	2 Hour																																					
	<i>CPMK-1</i>	Geomorphology	Project based	2 Hour																																					
	<i>CPMK-1</i>	Topographic map	Project based	2 Hour																																					
	<i>CPMK-2</i>	Rock	Project based	2 Hour																																					
	<i>CPMK-2</i>	Geological structure	Project based	2 Hour																																					
	<i>CPMK-2</i>	Geochronology	Project based	2 Hour																																					
	<i>CPMK-3</i>	Geologic map	Project based	2 Hour																																					
	<i>CPMK-3</i>	Geological tools	Project based	2 Hour																																					
	<i>CPMK-3</i>	<i>Field trip</i>	Project based	6 Hours																																					
<b>Learning Methods</b>	<i>Project based learning</i> , Presentations, discussions																																								
<b>Student Learning Experience</b>	Practice (observation), discussion																																								
<b>Access Learning Media / LMS and Offline &amp; Online Percentage</b>	LCD, paper, Simaster (e-learning) or Google classroom or ELOK. Geological map, geological compass, geological hammer, geological loupe. 100% offline																																								
<b>Assessment Methods and Alignment with CPMK</b>	<table border="1"> <thead> <tr> <th>Assessment Techniques</th> <th>Assessment Percentage</th> <th>Criteria/ Indicators</th> <th>CPMK-1</th> <th>CPMK-2</th> <th>CPMK-3</th> </tr> </thead> <tbody> <tr> <td>Participatory Activities*)</td> <td>30</td> <td>Participation Rubric</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Project Results/ Case Study Results/ PBL Results*)</td> <td>40</td> <td>Rubric of assessment presentation of case study results</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="6"><b>Cognitive</b></td> </tr> <tr> <td>Response</td> <td>30</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><b>Total</b></td> <td>100</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					Assessment Techniques	Assessment Percentage	Criteria/ Indicators	CPMK-1	CPMK-2	CPMK-3	Participatory Activities*)	30	Participation Rubric				Project Results/ Case Study Results/ PBL Results*)	40	Rubric of assessment presentation of case study results				<b>Cognitive</b>						Response	30					<b>Total</b>	100				
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*) can also be obtained from UTS or UAS which is the result of participatory activities or <i>project</i> / case study results. In accordance with IKU 7, <b>the percentage of</b> participatory activities and project results/case studies/PBL results is at least 50%.																																									
<b>Reference List</b>	<ol style="list-style-type: none"> <li>Manual of Basic Geology Practicum, Geological Engineering FT-UGM.</li> <li>Rowland S.M., Deubendorfer, E.M., Schiefelbein, L.M., 2007. Structural Analysis &amp; Synthesis : A Laboratory course in structural geology (3rd Ed.). Blackwell Publication.</li> <li>Structural Geology Practicum Manual, Geological Engineering FT-UGM.</li> </ol>																																								

<b>Name of Lecturer (Team Teaching)</b>	1. Mochamad Nukman 2. Sintia Windhi Niasari			
<b>Authorization</b>	<b>Drafting Date</b>	<b>Course Coordinator</b>	<b>Coordinator of Expertise (if applicable)</b>	<b>Head of Study Program</b>
	<i>Aug 16, 2022</i>	Dr.rer.nat. Mochamad Nukman.	Dr. rer.nat. Ade Anggraini, M.T.	 Dr. Sudarmaji, MSi.