

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



Physical
Geophysics
Seismic Method Practicum
MFG 2118/ 1 credits

Mentoring Team:
Seismic Method Practicum Assistance

**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:

.....

SEMESTER LEARNING PROGRAM AND ACTIVITY PLAN (RPKPS)

Course Code	Course Name	Weight (credit)		Semester	Course Status	Prerequisite Courses
MFG 2118	<i>Seismic Method Practicum</i>	<i>T: 0</i>	<i>P: 1</i>	<i>Odd</i>	<i>Mandatory</i>	MFG 2117 (Seismic Method)
Course Brief Description	Geophysics students are able to understand, acquire, process and analyze simple biased and reflective seismic methods					
Graduate Learning Outcomes (CPL) Charged to MK	CPL-1	Good Attitude: 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				
	CPL-3	Operational and comprehensive skills: 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				
	CPL-4	Application and analysis skills: Graduates are able to carry out and manage a geophysical survey which includes scientific steps in the acquisition, processing and interpretation of data for the exploration of natural resources both for energy (e.g. oil and gas, coal, 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.				
	CPL-5	Synthesis and Evaluation Skills: Graduates are able to interpret geophysical data in the form of solving advanced and reverse problems (inverse problems) in an integrated manner that have ambiguous characters, carry out interpretation by making models and / or solving simple forward and reverse problems and are skilled in the use of computers both for the purposes of solving geophysical problems and for communication and internet access.				
Course Learning Outcomes (CPMK)	After completing the learning of this course, students are expected to be able to:					
	CPMK-1	Able to design simple bias and reflective seismic surveys				
	CPMK-2	Able to perform simple bias and reflection seismic data acquisition				

	CPMK-3	Able to process simple biased and reflected seismic data		
	CPMK-4	Able to present the results of data processing in the form of reports		
CPL mapping with CPMK				
		CPMK1	CPMK2	CPMK3
	CPL-1	x	x	x
	CPL-3			x
	CPL-4		x	
	CPL-5			x
The Relationship of CPMK with Learning Materials and Forms, as well as Time Allocation		Learning Materials	Forms of Learning	Time Allocation
	CPMK1	Introduction	TCL - SCL mixed	1 Hour
	CPMK3	Picking first Break	TCL - SCL mixed	1 Hour
	CPMK3	Flat Layer Analysis	TCL - SCL mixed	1 Hour
	CPMK3	Bevel Layer Analysis	TCL - SCL mixed	1 Hour
	CPMK3	Analysis using the abc method	TCL - SCL mixed	1 Hour
	CPMK3	Analysis using Hagiwara Masuda method	TCL - SCL mixed	1 Hour
	UTS/Project Task Results/Case Analysis Results			
	CPMK3	Introduction to Seisunix	TCL - SCL mixed	1 Hour
	CPMK3	Data input and visualization	TCL - SCL mixed	1 Hour
	CPMK3	Filter and denoising	TCL - SCL mixed	1 Hour
	CPMK3	Speed analysis	TCL - SCL mixed	1 Hour
	CPMK3	Brute stanc and its analysis	TCL - SCL mixed	1 hour
	CPMK1-2	Tool Introduction	Field/Lab	2 hours
	CPMK1-4	Acquisition data field, reporting and reporting	Field	1 day
UAS/ Project Task Results/ Case Analysis				
Learning Methods	TCL - SCL mixed, problem based learning			
Student Learning Experience	Practice data processing, data design-acquisition, data analysis			
Access Learning Media / LMS and Offline & Online Percentage	Synchronous or asynchronous face-to-face/virtual lectures, field activities			

Assessment Methods and Alignment with CPMK	Assessment Techniques	Assessment Percentage	Criteria / Indicators	CPMK-1	CPMK-2	CPMK-3	CPMK-4
	Participatory Activities*)						
	Project Results / Case Study / PBL Results*)	40		10	10	10	10
Cognitive							
	Assignment	60		5		55	
	Quiz						
	UTS						
	UAS						
	Total	100					
*) 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, the percentage of participatory activities and project results/case studies/PBL results is at least 50%.							
Reference List	1. Seismic Method Practicum Guide 1, Geophysical Lab, 2004						
Name of Lecturer (Team Teaching)	Dr. Eddy Hartantyo Dr. Ade Anggraini						
Authorization	Drafting Date	Course Coordinator	Coordinator of Expertise (if applicable)	Head of Study Program			
	2020			 Dr. Sudarmaji, MSi			