

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



Geophysics Exploration Marine
Geophysics
MFG4625/ 2 credits

Mentoring Team:

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Dr. Sudarmaji, M.Si

**UNIVERSITAS GADJAH
MADA 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																				
MFG4625	Marine Geophysical Exploration	T: 2	P:	Odd	Choice																					
Course Brief Description	In this course, students will understand underwater geomorphological conditions, the use of bathymetric and seismic data, physical properties of rocks (magnetic, density, gravity), potential marine disasters, and subsurface exploration by 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-2	Mastery of knowledge : 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.																								
	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																								
Course Learning Outcomes (CPMK)	After completing the learning of this course, students are expected to be able to:																									
	CPMK-1	Understand the methods of Marine Geophysical Exploration, underwater morphology, potential marine hazards, underwater minerals																								
	CPMK-2	Understand the physical properties of underwater rocks such as magnetism, rock density, and <i>heat flow</i> .																								
	CPMK-3	Understand seismic exploration for sub-ocean, and processing marine seismic data																								
CPL mapping with CPMK	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>CPMK1</th> <th>CPMK2</th> <th>CPMK 3</th> <th></th> </tr> </thead> <tbody> <tr> <td>CPL-1</td> <td style="text-align: center;">✓</td> <td style="text-align: center;">✓</td> <td></td> <td></td> </tr> <tr> <td>CPL-2</td> <td style="text-align: center;">✓</td> <td style="text-align: center;">✓</td> <td></td> <td></td> </tr> <tr> <td>CPL-4</td> <td></td> <td></td> <td style="text-align: center;">✓</td> <td></td> </tr> </tbody> </table>							CPMK1	CPMK2	CPMK 3		CPL-1	✓	✓			CPL-2	✓	✓			CPL-4			✓	
	CPMK1	CPMK2	CPMK 3																							
CPL-1	✓	✓																								
CPL-2	✓	✓																								
CPL-4			✓																							
The Relationship of CPMK with Learning Materials and Forms, as well as Time Allocation	Learning Materials				Forms of Learning	Time Allocation																				
	CPMK-1	Introduction and introduction to Marine Geophysics			Lectures and	2 Hours																				
	CPMK-1	Underwater morphology			SCL+ Discussion	2 Hours																				

Reference List	1. Joes, E.J.W., Wiley, John&Sons, Marine Geophysics. ISBN: 9780471986942			
Name of Lecturer (Team Teaching)	1. Dr. rer. Nat. Herlan Darmawan, M.Sc 2. Adam Sukma Son, M.Si 3. Dr. Sudarmaji, M.Si			
Authorization	Drafting Date	Course Coordinator	Coordinator of Expertise (if any)	Head of Study Program
	03 September 2022			 Dr.. Sudarmaji,MSi