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



Geophysics Exploration Marine Geophysics MFG4625/2 credits

Mentoring Team:

Dr. rer. Nat. Herlan Darmawan, M.Sc Adam Sukma Putra, M. Si Dr. Sudarmaji, M.Si

UNIVERSITAS GADJAH MADA FACULTY OF MATHEMATICS AND NATURAL SCIENCES 2021

Forms, as well as **Time Allocation**

CPMK-1

Underwater morphology

Gadjah Mada University

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

Document	
Code:	

SEMI	ESTER LEA	RNING PRO	GRAN	M AND A	CTIVI	TY PLAN	(RPKPS)		
	Course Name Weight (credit)			Semester		Course Status		Prerequisite Courses	
MFG4625	Marine Geophysical Exploration	T: 2	<i>P</i> :	Odd		(Choice		
Course Brief Description	bathymetric a	n this course, students will understand underwater geomorphological conditions, the use of athymetric and seismic data, physical properties of rocks (magnetic, density, gravity), potential marine isasters, and subsurface exploration by seismic methods.							
Graduate Learning Outcomes	CPL-1 Good Attitude: Graduates are honest, disciplined, curious, critical, confident, independent emotionally mature, cooperative, and trustworthy. Uphold norms, values, morals, religion, generatives and professional ethics, and actively play a role in the global movement of sustain development and behave professionally							eligion, genera	
CPL) Charged to MK CPL-2 Mastery of knowledge: Graduates are able to apply basic science chemistry, biology, geology), and geophysics in general and their relations such as geology, geodesy, geochemistry, geography, computing and inform							ionship wit	h other sciences	
	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	After compl	eting the learni	ng of t	this course	, studen	ts are expec	eted to be ab	ole to:	
Outcomes (CPMK)	CPMK-1 Understand the methods of Marine Geophysical Exploration, underwater morphology, marine hazards, underwater minerals							ogy, potential	
	СРМК-2	flow.							ensity, and hear
	СРМК-3								
CPL mapping with CPMK		CPL-1 CPL-2 CPL-4	(CPMK1	СРМК	2 CPMF ✓	√		
The Relationship of CPMK with		Lea	arnin	g Mate	rials		Forms of 1	Learning	Time Allocation
Learning Materials and	СРМК-1	Introduction as	nd intro	oduction to	Marine	Geophysics	Lectures		2 Hours

<u>an</u>d

SCL+ Discussion

2 Hours

	CPMK-1	Hazards Poter	ntial in Marine		SCL+ Disc	cussion	2 Hou	ırs	
	CPMK-1	<i>MK-1</i> Underwater Minerals				SCL+ Discussion		2 Hours	
	СРМК-2	Heat flow and tides				cussion	2 Hou	ırs	
	СРМК-2	Paleomagneti	SCL+ Disc	2 Hours					
	СРМК-2	Gravity and u	SCL+ Discussion		2 Hours				
	UTS/Project Task Results/Case Analysis Results								
		Geological St	ructure and Marine Morpho	logy	SCL+ Disc	2 Hours			
	СРМК-3	Marin Explor	ation and Acquisition		SCL+ Disc	cussion	2 Hou	ırs	
	СРМК-3	Marine Seism	ic Exploration and Interpret	ation	SCL+ Disc	cussion	2 Hou	ırs	
	СРМК-3	Geomagnetic	exploration and interpretation	on	SCL+ Disc	cussion	2 Hou	ırs	
	СРМК-3	Marine Data l	Processing		SCL+ Disc	cussion	2 Hours		
	СРМК-3	Data Modelli	ing and Demo		SCL+ Disc	cussion	2 Hours		
			UAS/ Project Task Resul		•				
Learning Methods	In this course and discussion		rning methods, namely pres	entations fro	m lecturers	s, Student B	ased Lear	ning	
Student Learning Experience	Students actively discuss, listen and understand lecture materials given by lecturers, looking for literacy when <i>student-based learning</i> .								
Access Learning Media / LMS and Offline &; Online Percentage	100% offline								
Assessment Methods and Alignment with	Assessment Techniques	Assessment Percentage	Criteria/ Indicator	CPMK-1	CPMK- 2	CPMK-			
CPMK	Participatory Activities*)								
	Project Results/Case Study Results/PBL Results*)								
Cognitive									
	Assignment	20	Presentation liveliness	✓	✓			 	
	Quiz UTS	40		 				\vdash	
	UAS	40		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<u> </u>			_	
		 				1 •			
	Total	100							

Reference List	1. Joes, E.J.	W., Wiley, John&Sons, Marine G	eophysics. ISBN: 978047198694	42
Name of Lecturer (Team Teaching) Authorization	2. Adam Sul	at. Herlan Darmawan, M.Sc kma Son, M.Si maji, M.Si Course Coordinator	Coordinator of Expertise (if any)	Head of Study Program
	03 September 2022	fuland		Dr Sudarmaji,MSi