

**SEMESTER LEARNING ACTIVITY PLANS  
(SLAP)  
SEMESTER ODD/EVEN 2022/2023**



Physics Undergraduate Study Program

Physics Department

Final Project B\*\*)

MFF 4011/ 4 Credits

Lecturer Coordinator:

**UNIVERSITAS GADJAH MADA  
FACULTY OF MATHEMATICS AND NATURAL SCIENCE  
2022**



**Universitas Gadjah Mada**

Faculty of Mathematics and Natural Science  
 Physics Department / Physics Undergraduate Study Program  
 Semester ODD/EVEN 2022/2023

**Document Number :**

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**SEMESTER LEARNING ACTIVITY PLANS (SLAP)**

Code	Course Name	Credits (Credits)		Semester	Status	Prerequisite
<i>MFF 4011</i>	<i>Final Project B**</i>	<i>T: 4</i>	<i>P: ...</i>	<i>ODD/EVEN</i>	<i>Compulsory</i>	<i>Research Methodology and Scientific Speaking**) (MFF2060), Final Project A (MFF4011*), Minimum 100 Credits</i>
<b>Short Description</b>						
<b>Program Learning Outcomes (PLO) Imposed on the Course</b>	<b>PLO 2</b>	<b>Knowledge.</b> Able to explain theoretical concepts and principles of classical and modern physics and able to apply basic concepts of physics and related mathematical methods in finding solutions to physical problems.				
	<b>PLO 3</b>	<b>General Skills.</b> Able to communicate the results of problem studies and physical behavior both in writing and verbally, as well as being able to lead and collaborate at various levels of roles in a team.				
	<b>PLO 4</b>	<b>Special Skills.</b> Able to design and carry out experiments/theoretical reviews, able to identify a physical problem based on the results of observations and experiments, and able to operate related technologies.				
	<b>PLO 5</b>	<b>Long Life Learning.</b> Able to analyze various alternative solutions to physical problems and conclude them for appropriate decision-making, both in familiar and new problems.				
<b>Course Outcomes (CO)</b>	<b>After completing this course, students are expected to be able to:</b>					
	<b>CO1</b>					
	<b>CO2</b>					
	<b>CO3</b>					
	<b>CO4</b>					
	<b>CO5</b>					
	<b>CO6</b>					
	<b>CO7</b>					
	<b>CO8</b>					
	<b>CO9</b>					
	<b>CO10</b>					
	<b>CO11</b>					
	<b>CO12</b>					
<b>CO13</b>						
<b>The Correlation of CO to Learning Materials and</b>	<b>Learning Materials</b>			<b>Learning Methods</b>		<b>Time Allocation</b>
						<i>4X50 minutes</i>
						<i>4X50 minutes</i>

<b>Methods, and Time Allocation</b>									<i>4X50 minutes</i>	
									<i>4X50 minutes</i>	
									<i>4X50 minutes</i>	
									<i>4X50 minutes</i>	
	<b>Midterm exam/Project Task Results/Case Analysis Results</b>									
										<i>4X50 minutes</i>
										<i>4X50 minutes</i>
										<i>4X50 minutes</i>
										<i>4X50 minutes</i>
										<i>4X50 minutes</i>
										<i>4X50 minutes</i>
										<i>4X50 minutes</i>
	<b>Final exams/ Project Task Results/Case Analysis Results</b>									
<b>Learning Methods</b>										
<b>Student Learning Experience</b>										
<b>Access to Learning Media/ LMS and Offline and Online Percentage</b>										
<b>Assessment Methods and Synchronization with CO</b>	<b>Assessment Methods</b>	<b>Assessment Percentage</b>	<b>Criteria/ Indicators</b>	<b>CO1</b>	<b>CO2</b>	<b>CO3</b>	<b>CO4</b>	<b>CO5</b>	<b>CO6</b>	
	<b>Participatory Activity*</b>									
	<b>Project Results/ Case Study Results/ PBL Results*</b>									
	<b>Cognitive</b>									
	<b>Assignment</b>	<b>15</b>			√	√	√	√	√	√
	<b>Quiz</b>	<b>15</b>								
	<b>Midterm Exam</b>	<b>35</b>								
	<b>Final Exam</b>	<b>35</b>								
	<b>Total</b>	<b>100</b>								
	*) can also be obtained from the Midterm or Final Exam as the result of participatory activities or project/ case study results. According to IKU 7, the percentage of project results/ case study/ PBL results is at least 50%.									

<b>References</b>	<b>Main References;</b> 1. . 2. . 3. . 4. . 5. . 6. .  <b>Additional References:</b> 1. 2. 3. 4.			
<b>Lecturers (Team Teaching)</b>	1. 2. 3. 4.			
<b>Authorization</b>	<b>Date of Drafting</b>	<b>Lecturer Coordinator</b>	<b>Head of Curriculum Committee</b>	<b>Head of Study Program</b>
				<i>Dr. Eng. Ahmad Kusumaatmaja, S.Si., M.Sc.</i>