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

Scientific Publication A

MFF6031 / 4 Credits

Lecturer Coordinator:

Prof. Yusril Yusuf, S.Si., M.Si., M.Eng., D.Eng., Ph.D.

UNIVERSITAS GADJAH MADA
FACULTY OF MATHEMATICS AND NATURAL SCIENCE
2022

Universitas Gadjah Mada
Faculty of Mathematics and Natural Science
Physics Department / Study Program Master Physics
Semester Odd/Even 2022/2023

SEMESTER LEARNING ACTIVITY PLANS (SLAP)

Code	Course Name	Credits (credits)	Semester	Status	Prerequisite
MFF6031	*Scientific Publication A*	*4*	*Odd/Even*	*Elective*	*Can only be taken by students on the research path*

Short Description

Scientific Publication A course is Elective course 4 credits (Theory) in the 2022 Curriculum Master Physics Study Program, Faculty of Mathematics and Natural Science UGM.

The syllabus of this course is as follows:
Students compile a draft manuscript based on the research results conducted during the Master of Research-Based Physics program. The publication manuscript can be either part or part of a Master of Physics thesis research. The draft manuscript of the publication must follow the template of the intended journal. All prerequisites of the intended journal must be met.

The courses are held in class for 14 weeks, each week's session last for 4 x 50 minutes. Four weeks of course period is used for Midterm Exam and Final Exam, each held for two weeks as scheduled.

Student evaluation for course assessments is performed summative and formative. The summative evaluation is implemented as written exams, both Midterm and Final Exam, which take a maximum of 120 minutes. The formative evaluation is implemented as individual assignments for each student in the form of completing an assignment individually. Monitoring is carried out by observing student activities during the course, such as attendance, Q&A and discussion about the material presented, and student performance in completing individual assignments.

Program Learning Outcomes (PLO) Imposed on the Course

PLO 1	Have a commendable attitude and ethics as a scientist.
PLO 2	Having the professional ability of a scientist.
PLO 3	Mastering further knowledge of classical and modern physics theory, and its relationship with other disciplines, and has mastered an advanced field of physics specialization that allows him to keep up with the latest international research developments.
PLO 4	Mastering various mathematical disciplines related to an advanced field of physics, and able to develop physical models using various mathematical and computational tools with an inter or multidisciplinary approach to solving problems related to an advanced field of physics.
PLO 5	Able to plan, manage and carry out experiments and conclude the results, or be able to create and use modeling and simulations based on the basic principles of physics to study and solve a problem in a scientific field of Physics or applied Physics that produces models, methods, or theories tested and innovative.
PLO 6	Able to apply knowledge to analyze, synthesize, formulate problems and solve problems comprehensively in one of advanced field of physics, through experimental or theoretical research, then be able to classify and draw conclusions about their findings for the development of science and technology.

	PLO 7	Able to communicate and discuss orally and in writing the results of studies, and mastery of various problems in the field of physics and other related fields in Indonesian and English, as well as being able to document and save the results of the study and mastery, and publish them in reputable scientific forums or scientific journals.

Course Outcomes (CO)	**Upon completion of this course, students should be able to:**			
	CO1	Prepare a draft publication of the results of his research according to the template of the intended international reputable journal		
	CO2			
	CO3			
	CO4			
	CO5			
	CO6			
	CO7			
	CO8			
The Correlation of CO to Learning Materials and Methods, and Time Allocation		**Learning Materials**	**Learning Methods**	**Time Allocation**
	CO1			4 x 50 minutes
	CO1			4 x 50 minutes
	CO1			4 x 50 minutes
	CO2			4 x 50 minutes
	CO2			4 x 50 minutes
	CO2			4 x 50 minutes
	CO2			4 x 50 minutes
	CO3			4 x 50 minutes
	CO3			4 x 50 minutes
	CO3			4 x 50 minutes
	CO4			4 x 50 minutes
	CO4			4 x 50 minutes
	CO4			4 x 50 minutes
	CO4			4 x 50 minutes
	Final Exam/ Project Task Results/ Case Analysis Results			

<table>
<tr><td>Learning Methods</td><td></td></tr>
<tr><td>Student Learning Experience</td><td>Learn to analyze and review: , , , , , , , , , , , , , .</td></tr>
<tr><td>Access to Learning Media/ LMS and Offline and Online Percentage</td><td></td></tr>
<tr><td>Assessment Methods and Synchronization with CO</td><td>
<table>
<tr><th>Assessment Methods</th><th>Assessment Percentage</th><th>Criteria/Indicators</th><th>CO1</th><th>CO2</th><th>CO3</th><th>CO4</th></tr>
<tr><td>Participatory Activity*</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Project Results/ Case Study Results/ PBL Results*</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="7">Cognitive</td></tr>
<tr><td>Assignment</td><td>30%</td><td></td><td>7,5%</td><td>7,5%</td><td>7,5%</td><td>7,5%</td></tr>
<tr><td>Quiz</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Midterm Exam</td><td>35%</td><td></td><td>17,5%</td><td>17,5%</td><td></td><td></td></tr>
<tr><td>Final Exam</td><td>35%</td><td></td><td></td><td></td><td>17,5%</td><td>17,5%</td></tr>
<tr><td colspan="7">*) 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%.</td></tr>
</table>
</td></tr>
<tr><td>References</td><td>Main references:</td></tr>
<tr><td>Lecturers (Team Teaching)</td><td>1. Prof. Yusril Yusuf, S.Si., M.Si., M.Eng., D.Eng., Ph.D.
2.
3.
4.</td></tr>
<tr><td>Authorization</td><td>
<table>
<tr><th>Date of Drafting</th><th>Lecturer Coordinator</th><th>Head of Curriculum Committee</th><th>Head of Study Program</th></tr>
<tr><td></td><td>Prof. Yusril Yusuf, S.Si., M.Si., M.Eng., D.Eng., Ph.D.</td><td>Dr.Ing. Ari Setiawan</td><td>Mirza Satriawan, M.Si., Ph.D</td></tr>
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Weekly Learning Activity Plan (WLAP)

Week	Sub-CO (Planned Final Capability)	Assessment Methods			Learning Materials	Learning Methods	Learning Time Load	Student Learning Experience	Learning Media	External References and Learning Resources
		Indicators	Components	Percentages (%)						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Students are able to explain concepts and solve cases related to						4 x 50 minutes	Learn to analyze and review		Textbooks
2	Students are able to explain concepts and solve cases related to	Problem-solving skills in ,	Assignment 1	5			4 x 50 minutes	Learn to analyze and review		Textbooks
3	Students are able to explain concepts and solve cases related to						4 x 50 minutes	Learn to analyze and review		Textbooks
4	Students are able to explain concepts and solve cases related to	Problem-solving skills in ,	Assignment 2	5			4 x 50 minutes	Learn to analyze and review		Textbooks
5	Students are able to explain concepts and solve cases related to						4 x 50 minutes	Learn to analyze and review		Textbooks
6	Students are able to explain concepts and solve cases related to	Problem-solving skills in ,	Assignment 3	5			4 x 50 minutes	Learn to analyze and review		Textbooks

7	Students are able to explain concepts and solve cases related to						4 x 50 minutes	Learn to analyze and review		Textbooks
			Midterm Exam	35						
8	Students are able to explain concepts and solve cases related to						4 x 50 minutes	Learn to analyze and review		Textbooks
9	Students are able to explain concepts and solve cases related to	Problem-solving skills in ,	Assignment 4	5			4 x 50 minutes	Learn to analyze and review		Textbooks
10	Students are able to explain concepts and solve cases related to						4 x 50 minutes	Learn to analyze and review		Textbooks
11	Students are able to explain concepts and solve cases related to	Problem-solving skills in ,	Assignment 5	5			4 x 50 minutes	Learn to analyze and review		Textbooks
12	Students are able to explain concepts and solve cases related to						4 x 50 minutes	Learn to analyze and review		Textbooks
13	Students are able to explain concepts and solve cases related to	Problem-solving skills in ,	Assignment 6	5			4 x 50 minutes	Learn to analyze and review		Textbooks
14	Students are able to explain concepts and solve cases related to						4 x 50 minutes	Learn to analyze and review		Textbooks

				35	Final Exam					