FI224 Basic Physics Experiment II

Module name:	Basic Physics Experiment II					
Module level, if applicable:	Undergraduate					
Code:	F1224					
Sub-heading, if applicable:	-					
Classes, if applicable:	-					
Semester:	2 nd					
Module coordinator:	Mimin Iryanti					
Lecturer(s):	Mimin Iryanti and Selly Feranie					
Language:	Bahasa Indonesia					
Classification within the curriculum:	Compulsory course					
Type of Teaching	Contact hours per week during the semester	Class Size				
Lecture (expository method, discussion, presentation, and experiment). Structure activities (assignments based on conceptual, contextual, and problem-solving approaches) Self-study (reading literature)	100 minutes	20				
Workload:	Total workload is 90 hours 3.2 ECTS (5440 minutes) per se which consists of 1400 minutes (0.82 ECTS) lectures, 1680 n					
Credit points:	4.8 ECTS (3 SKS)					
Pre-requisites course(s):	FI223 Basic Physics Eksperiment I					
Course Learning Outcomes (CLO):	After taking this course, the students have the ability to: CLO1: Explain various methods in a physics experiment CLO2: Describe the measurement error. CLO3: Measure physical quantities. CLO4: Develop basic physics experiments. CLO5: Retrieve and process primary physics experimental data CLO6: COMMUNICATE TO THE PROPERTY OF THE PROP					
Content:	Electrical circuits, Switch circuits, capacitors, magnetism, self-inductance, optics (reflection and refraction of light)					

	The final mark will be weight as follow:						
	No			Assessment Techniques	Weight		
Study/exam achievements:	1 Total	1 - 8	Subject specific competences: a. Individual assignments b. Class activity c. Mid exam d. Final exam	Written Performance Written test Written test	20% 40% 20% 20%		
Forms of media:	Board, LCD Projector, Laptop/Computer, Demonstration Equipment Package, LMS						
Literature:	 Squires, G. L. (2012). Practical Physics. Cambridge University Press. Shailaja Mahamuni, et al. (2020). Foundations of Experimental Physics. CRC Press. Werner Boeglin, (2022), a summary of Error Analysis and Statistical Method, Wanda Fiu. Edu P.N Kaloyerou, 2018, Basic Concepts of Data and Error Analysis: With Introduction to Probability and Statistics and Computer Methods, Springer. Herman. (2011). A Student's Guide to Data and Error Analysis. Cambridge University Press. Ostdiek, V. J., & Bord, D. J. (2005). Inquiry into physics. Thomson Brooks/Cole. Steven Adam & Jonathan Allday, (2013), Advance Physics, 2nd Edition, Oxford. M.I. Pergament, (2015), Methods of Experimental Physics, Taylor and Francis Group. Paul Allen Tipler, & Mosca, G. (2008). Physics for scientists and engineers. W.H. Freeman. Walker, J., Resnick, R., & Halliday, D. (2014). Halliday & Resnick fundamentals of physics. John Wiley & Sons, Inc. Giancoli, D. C. (2005). Physics. volume 1: principles with applications. Pearson/Prentice Hall (2001). FISIKA, 						

PLO and CLO mapping

	PLO1	PLO 2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CLO1				V								
CLO2				V								
CLO3				V								
CLO4				$\sqrt{}$								
CLO5												
CLO6				V								
CLO7				V								
CLO8				V								