FI342 Optics

Module name:	Optics					
Module-level, if applicable:	Undergraduate					
Code:	FI342					
Sub-heading, if applicable:	-					
Classes, if applicable:	-					
Semester:	3 rd					
Module coordinator:	Wiendartun					
Lecturer(s):	Wiendartun					
Language:	Bahasa Indonesia					
Classification within the curriculum:	Compulsory course					
Type of Teaching:	Contact hours per week during the semester	Class Size				
 Lecture (conceptual, contextual and problem-solving approaches through expository, discussions, exercises and presentation). Structured activities (assignments based on conceptual, contextual and problem-solving approaches, Presentation) Self-study (reading literature) 	1 hour 40 minutes	35				
Workload:	The total workload is 91 hours/5440 minutes (3.2 ECTS) per semester, consisting of 25 hour 20 minutes/1400 minutes lectures (0.82 ECTS), 28 hours/1680 minutes structured activities (0.98 ECTS) and 28 hours/1680 minutes self-study (0.98 ECTS) per week for 14 weeks, 11hour 54 minutes/714 minutes for two exams (0.42 ECTS).					
Credit points:	3.2 ECTS					
Pre-requisites course(s):	FI120 Basic Mathematics, FI121 Basic Physics I					
Course Learning Outcomes (CLO):	After taking this course the students have ability to: CLO1: Analyze geometrical optics, CLO2: Explain the working principle of optical instruments, CLO3: Analyze physical optics.					
Content:	Concept of: Geometric Optics, Optical instruments, Physical Optics					

	The final mark will be weight as follow:						
	No	CLO	Assessment Assessment Object Techniques			Weight	
Study/exam achievements:	1	CLO1 - 3	Subject competer a. Indivio assigr b F	specific nces: dual nments xam	Written	20 %	
		CLO1	- Mid	Iterm	Written test	30%	
		CLO3	exa	im	Written test	30%	
	2	CLO2	- Fina	al exam	Performance	20%	
			c. P	resentatio			
		100%					
Forms of media:	Board, LCD Projector and Laptop/Computer						
Literature:	 Sears dan Zemansky (2003). University Physics Volume 2, 10th edition, Erlangga, Indonesia Jenkins, F. A., & Harvey Elliott White. (2018). Fundamentals of optics. Mcgraw-Hill. Singh, D. (2015). Fundamentals of optics, second edition. Phi learning pvt. Ltd. 						

PLO and CLO mapping

	PLO1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9	PLO 10	PLO 11	PLO 12
CLO 1		\checkmark										
CLO 2		\checkmark										
CLO 3												