

## UIN SUNAN KALIJAGA YOGYAKARTA FACULTY OF SCIENCE AND TECHNOLOGY

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### **Undergraduate Programme in Physics**

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#### **MODULE HANDBOOK**

Module Name	Elementary Physics 2					
Module level, if applicable	Bachelor					
Code, if applicable	FIS414006					
Subtitle, if applicable	-					
Courses, if applicable	Elementary Physics 2					
Semester(s) in which the module is	2 <sup>st</sup> (Second)					
taught						
Person responsible for the module	Dr. Nita Handayani, M.Si					
Lecturer(s)	Dr. Nita Handayani, M.Si					
Language	Indonesia					
Relation to curriculum	Compulsory course in the first year (2 <sup>st</sup> semester) Bachelor Degree					
Type of teaching, contact hours	150 minutes lectures, 170 minutes practicum and 180 minutes structured activities					
	per week.					
Workload	Total workload is 181,3 hours per semester, which consists of 150 minutes lectures					
	per week for 14 weeks, 170 minutes practicum per week, 180 minutes structured					
	activities per week, 180 minutes individual study per week, in total is 16 weeks per					
	semester, including mid exam and final exam					
Credit points	4					
Requirements according to the	Minimal attendance 75%					
examination regulations	All assignments are submitted					
	Come to class on time					
Recommended prerequisites	Elementary Physics 1					
Module objectives/intended learning	After completing this course, the students:					
outcomes	CO 1. Able to explain and apply theoretical concepts and basic principles of classical physics regarding magnetic electricity, electromagnetic waves and optics comprehensively.					
	CO 2. Able to apply logical, critical and systematic thinking in solving physics problems or implementing science and technology in accordance with the field of physics.					
	CO 3. Able to formulate physical phenomena, master the basic principles of experimentation and design simple technology based on physics concents					
Content	Electrostatic (electric field Coulomb Law, eletric dipole) Electric potential energy					
content	Electrical notential canasitor electric current Magnetostatic Electromotive Force					
	Magnetism in Matter, Alternating Current, Electromagnetic wave, and Optics.					
Study and examination requirements and forms of examination	The final mark will be weighted as follows:					



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	NO Assessment methods (components, activities)					ies)	Weight
							(percentage)
	1	Final Examination					25%
	2	Mid-Term Examination					25%
	3	Class Activities : Quiz, Homework, etc.					15%
	4	Project Based Learning (PBL)					10%
	5	Practicum					25%
	The final assessment is expressed in the form of a letter value converted from a number value with the following categories:         NO       Number       Letter       NO       Number       Letter         Value       Value       Value       Value       Value						
	1	≥ 95	А	7	65-69.99	B/C	
	2	90-94.99	A-	8	60-64.99	C+	
	3	85-89.99	A/B	9	55-59.99	С	
	4	80-84.99	B+	10	50-54.99	C-	
	5	75-79.99	В	11	55-34.99	D	
	6	70-74.99	B-	12	<35	E	
Media employed	White	board LCD F		-learning	thttps://dari	ng uin-suka ac	id/)
Reading list	1	Voung and	Ereedmar		Iniversity Phy	rics with Mode	urn Physics 13th
Reading list	1. Young and Freedman, 2012, University Physics with Modern Physics 13th						
	<ol> <li>Searway R.A, Jewett, J.W., 2008, Physics for Scientist and Engineers with Modern Physics: Seventh Edition</li> <li>Halliday, D., Resnick, R., and Walker, J., Principle of Physics, 10th, John Wiley &amp; Sons, 2014</li> <li>Paul A. Tipler, Gene Mosca, <i>Physics for Scientists and Engineers with Modern</i> <i>Physics (extended version)</i>, 6<sup>th</sup> Edition, W.H. Freeman and Company, 2008.</li> </ol>						
		Physics (ex	tended ve	rsion), 6 <sup>ti</sup>	<sup>•</sup> Edition, W.H	. Freeman and	Company, 2008.

#### PLO and CO Mapping

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9
CO 1		$\checkmark$							
CO 2				$\checkmark$					
CO 3									$\checkmark$