



**UNIVERSITAS NEGERI YOGYAKARTA**  
**FACULTY OF MATHEMATICS AND NATURAL SCIENCES**  
**DEPARTMENT OF SCIENCE EDUCATION**  
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**Bachelor of Education in Science**

**MODULE HANDBOOK**

Module name:	<b>General Physics II</b>
Module level, if applicable:	Undergraduate
Code:	IPA6212
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	2 <sup>th</sup>
Module coordinator:	Al Maryanto, M.Pd.
Lecturer(s):	Al Maryanto, M.Pd.
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course
Teaching format / class hours per week during the semester:	100 minutes lectures and 120 minutes structured activities per week.
Workload:	Total workload is 90,67 hours per semester which consists of 100 minutes lectures, 120 minutes structured activities, and 120 minutes individual study per week for 16 weeks.
Credit points:	2 SKS (3 ETCS)
Prerequisites course(s):	-
Targeted learning outcomes:	After careful study of this chapter students are expected to have gained theoretical and applied knowledge of basic topics related to: CO1. electricity and magnetism, CO2. wave motion, CO3. optics, CO4. and introduction to modern physics, including quantum mechanics and special relativity
Content:	This course is an introduction to electricity and magnetism, light, resistive and capacitive circuits; electromagnetic

	induction; electromagnetic waves; geometrical optics; interference, diffraction, and polarization of light. Many concepts from General Physics I will be used in this course such as: position, velocity, acceleration, force, Newton's laws of motion, work and energy. The course uses high school algebra, geometry and trigonometry, vectors and vector arithmetic, and some calculus..															
Study / exam achievements:	<p>Attitude assessment is carried out at each meeting by observation and/or self-assessment techniques using the assumption that basically every student has a good attitude. The student is given a value of very good or not good attitude if they show it significantly compared to other students in general. The result of attitude assessment is not a component of the final grades, but as one of the requirements to pass the course. Students will pass from this course if at least have a good attitude.</p> <p>The final mark will be weight as follow:</p> <table><tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr><tr><td>1</td><td>CO1, CO2, CO3, CO4,</td><td>a. Individual Assignment b. Group Assignment c. Quiz d. Mid e. Final Exam</td><td>Presentation / written test</td><td>15% 15% 15% 25% 30%</td></tr><tr><td colspan="4">Total</td><td>100%</td></tr></table>	No	CO	Assessment Object	Assessment Technique	Weight	1	CO1, CO2, CO3, CO4,	a. Individual Assignment b. Group Assignment c. Quiz d. Mid e. Final Exam	Presentation / written test	15% 15% 15% 25% 30%	Total				100%
No	CO	Assessment Object	Assessment Technique	Weight												
1	CO1, CO2, CO3, CO4,	a. Individual Assignment b. Group Assignment c. Quiz d. Mid e. Final Exam	Presentation / written test	15% 15% 15% 25% 30%												
Total				100%												
Forms of media:	Board, LCD Projector, Laptop/Computer															
Literature:	<ol style="list-style-type: none"><li>1. David Halliday &amp; Robert Resnick (Pantur Silaban &amp; Erwin Sucipto), (1989). FISIKA, Erlangga-Jakarta.</li><li>2. Paul A. Tipler (Dr. Bambang Soegijono). (2001). FISIKA, Untuk Sains dan Teknik, Erlangga-Jakarta.</li><li>3. Douglas C. Giancoli. (2001). FISIKA, Erlangga-Jakarta</li></ol>															

### PLO and CO mapping

	PLO											
	Attitude			Knowledge				Spesific SKill				
	PLO1	PLO2	PLO3	PLO1	PLO2	PLO3	PLO4	PLO1	PLO2	PLO3	PLO4	PLO5
CO1					✓	✓						
CO2					✓		✓					
CO3				✓			✓					
CO4					✓	✓						