



3. General Physics 2 (PH021IU)

Module designation	<i>This subject will provide a basic knowledge of electricity and magnetism.</i>
Semester(s) in which the module is taught	1, 2, summer semester
Person responsible for the module	Assoc. Prof. Phan Bảo Ngọc Dr. Phan Hiền Vũ Dr. Trần Nguyên Lân Dr. Nguyễn Quang
Language	English
Relation to curriculum	Compulsory
Teaching methods	Lecture, lesson, project.
Workload (incl. contact hours, self-study hours)	(Estimated) Total workload: 127.5 Contact hours (please specify whether lecture, exercise, laboratory session, etc.): lecture: 37.5 Private study including examination preparation, specified in hours: 90
Credit points/ECTS	3 credits/4.62 ECTS
Required and recommended prerequisites for joining the course	Previous course: General Physics 1 (PH019IU) (or Physics 1 (PH013IU) Physics 2 (PH014IU))



Module objectives/intended learning outcomes	Upon the successful completion of this course students will be able to:	
	Competency level	Course learning outcome (CLO)
	Knowledge	CLO1. Understand basic knowledge of electricity and magnetism. CLO2. Apply knowledge of physics to solving problems in science and engineering.
	Skill	CLO3. Apply skills to analyzing and solving problems in science and engineering.
Attitude	CLO4. Communicate effectively in writing manner.	



<p>Content</p>	<p><i>The description of the contents should clearly indicate the weighting of the content and the level.</i></p> <p>Weight: lecture session (3 hours)</p> <p>Teaching levels: I (Introduce); T (Teach); U (Utilize)</p> <table border="1" data-bbox="614 472 1393 1379"> <thead> <tr> <th>Topic</th> <th>Weight</th> <th>Level</th> </tr> </thead> <tbody> <tr> <td>Chapter 1: Electric Fields</td> <td>3</td> <td>I, T, U</td> </tr> <tr> <td>Chapter 2: Electric Potential and Capacitance</td> <td>2</td> <td>I, T, U</td> </tr> <tr> <td>Chapter 3: Current and Resistance. Direct Current Circuits</td> <td>3</td> <td>I, T, U</td> </tr> <tr> <td>Chapter 4: Magnetism</td> <td>2</td> <td>I, T, U</td> </tr> <tr> <td>Chapter 5: Electromagnetic Induction</td> <td>2</td> <td>I, T, U</td> </tr> <tr> <td>Chapter 6: Electromagnetic Oscillations and Alternating Current</td> <td>2</td> <td>I, T, U</td> </tr> <tr> <td>Chapter 7: Maxwell's Equation and Electromagnetic Waves</td> <td>1</td> <td>I, T, U</td> </tr> </tbody> </table>	Topic	Weight	Level	Chapter 1: Electric Fields	3	I, T, U	Chapter 2: Electric Potential and Capacitance	2	I, T, U	Chapter 3: Current and Resistance. Direct Current Circuits	3	I, T, U	Chapter 4: Magnetism	2	I, T, U	Chapter 5: Electromagnetic Induction	2	I, T, U	Chapter 6: Electromagnetic Oscillations and Alternating Current	2	I, T, U	Chapter 7: Maxwell's Equation and Electromagnetic Waves	1	I, T, U
Topic	Weight	Level																							
Chapter 1: Electric Fields	3	I, T, U																							
Chapter 2: Electric Potential and Capacitance	2	I, T, U																							
Chapter 3: Current and Resistance. Direct Current Circuits	3	I, T, U																							
Chapter 4: Magnetism	2	I, T, U																							
Chapter 5: Electromagnetic Induction	2	I, T, U																							
Chapter 6: Electromagnetic Oscillations and Alternating Current	2	I, T, U																							
Chapter 7: Maxwell's Equation and Electromagnetic Waves	1	I, T, U																							
<p>Examination forms</p>	<p>Exam</p>																								
<p>Study and examination requirements</p>	<p>Attendance: A minimum attendance of 80 percent is compulsory for the class sessions. Students will be assessed on the basis of their class participation. Questions and comments are strongly encouraged.</p> <p>Assignments/Examination: Students must have more than 50/100 points overall to pass this course.</p>																								



Reading list	<p>[1] Halliday D., Resnick R. and Walker, J. (2011) <i>Fundamentals of Physics</i>, 9th edition, John Willey and Sons, Inc.</p> <p>[2] Alonso M. and Finn E.J. (1992) <i>Physics</i>, Addison-Wesley Publishing Company.</p> <p>[3] Hecht, E. (2000) <i>Physics: Calculus</i>, 2nd edition, Brooks/Cole.</p> <p>[4] Faughn/Serway (2006) <i>Serway's College Physics</i>, Thomson Brooks/Cole.</p>
--------------	---