



#### 4. General Physics 2 Lab (PH022IU)

Course designation	<i>This course provides students with basic knowledge of electricity and magnetism in the laboratory, consisting of: Ohm's law, LRC circuit, RC circuit, LR circuit, magnetic fields of coils....</i>
Semester(s) in which the course is taught	1, 2, summer semester
Person responsible for the course	MSc. Trịnh Thanh Thủy MSc. Lê Thị Quế
Language	English
Relation to curriculum	Compulsory
Teaching methods	Experiment, writing report
Workload (incl. contact hours, self-study hours)	(Estimated) Total workload: 55 Contact hours (please specify whether lecture, exercise, laboratory session, etc.): lecture: 25 Private study including examination preparation, specified in hours: 30
Credit points/ECTS	1 credit/2 ECTS
Required and recommended prerequisites for joining the course	Parallel course: General Physics 2 (PH021IU) (or Physics 3 (PH015IU))



Course learning outcomes	Upon the successful completion of this course students will be able to:		
	<b>Competency level</b>	<b>Course learning outcome (CLO)</b>	
	Knowledge	CLO1. Understand basic knowledge of electricity and magnetism.	
	Skill	CLO2. Approach and solve problems in electricity and magnetism experiments CLO3. Write scientific report, have understanding the relations between theory and experiment	
Attitude	CLO4. Communicate effectively in writing manner.		
Content	<p><i>The description of the contents should clearly indicate the weighting of the content and the level.</i></p> <p>Weight: experiment session (4 hours)</p> <p>Teaching levels: I (Introduce); T (Teach); U (Utilize)</p>		
	<b>Topic</b>	<b>Weight</b>	<b>Level</b>
	Ohm's law	1	T,U
	Resistances in Circuits	1	T,U
	LRC Circuits	1	T,U
	Kirchhoff's laws	1	T,U
	RC circuit	1	T,U
	LR circuit	1	T,U
	Magnetic fields of coils	1	T,U
	The e/m experiment	1	T,U
Examination forms	Experiment, write report		



Study and examination requirements	<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] Lab manual, PASCO Scientific</p> <p>[2] Halliday D., Resnick R. and Walker, J. (2011) <i>Principles of Physics</i>, 9th edition, John Willey and Sons, Inc.</p> <p>[3] Alonso M. and Finn E.J. (1992) <i>Physics</i>, Addison-Wesley Publishing Company.</p> <p>[4] Faughn/Serway (2006) <i>Serway's College Physics</i>, Thomson Brooks/Cole.</p>