

**5. General Physics 3 (PH023IU)**

Course designation	<i>This subject will provide a basic knowledge of Wave and Modern Physics</i>
Semester(s) in which the course is taught	1, 2, summer semester
Person responsible for the course	Dr. Đỗ Xuân Hội Dr. Trần Nguyên Lân
Language	English
Relation to curriculum	Compulsory
Teaching methods	Lecture, lesson, assignment.
Workload (incl. contact hours, self-study hours)	(Estimated) Total workload: 85 Contact hours (please specify whether lecture, exercise, laboratory session, etc.): lecture: 25 Private study including examination preparation, specified in hours: 60
Credit points/ECTS	2 credits/3.08 ECTS
Required and recommended prerequisites for joining the course	Previous course : Physics 1 (PH013IU)



Course 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 waves, quantum physics, special relativity, and nuclear physics 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	
Content	<p><i>The description of the contents should clearly indicate the weighting of the content and the level.</i></p> <p>Weight: lecture session (2 hours)</p> <p>Teaching levels: I (Introduce); T (Teach); U (Utilize)</p>		
	Topic	Weight	Level
	Chapter 1: Vibration and Mechanical Wave	3	I, T,U
	Chapter 2: Properties of Light	2	I, T,U
	Chapter 3: Introduction to Quantum Physics	3	I, T,U
	Chapter 4: Atomic Physics	4	I, T,U
	Chapter 5: Relativity and Nuclear Physics	3	I, T,U
Examination forms	Exam		



<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>
<p>Reading list</p>	<p>[1] Lecture Notes</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>