

## COURSE OUTLINE

### (1) GENERAL

<b>SCHOOL</b>	SCHOOL OF SCIENCES		
<b>ACADEMIC UNIT</b>	PHYSICS DEPARTMENT		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	22	<b>SEMESTER</b>	2
<b>COURSE TITLE</b>	FOREIGN LANGUAGE		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>	<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>	
	4	4	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
<b>COURSE TYPE</b> <i>general background, special background, specialised general knowledge, skills development</i>	General background		
<b>PREREQUISITE COURSES:</b>			
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	English/French/German		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>			
<b>COURSE WEBSITE (URL)</b>	<a href="http://ecourse.uoi.gr/course/view.php?id=1047">http://ecourse.uoi.gr/course/view.php?id=1047</a>		

### (2) LEARNING OUTCOMES

<p><b>Learning outcomes</b></p> <p><i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> <li>• <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i></li> <li>• <i>Descriptors for Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i></li> <li>• <i>Guidelines for writing Learning Outcomes</i></li> </ul>
<p><b>After successful completion of the course the student will be able to:</b></p> <ul style="list-style-type: none"> <li>• <b>Recognise the specific terminology encountered in scientific texts and articles</b></li> <li>• <b>Recite mathematical formulas, describe geometric shapes, define the position and movement of objects, in the foreign language</b></li> <li>• <b>Demonstrate comprehension of the terminology required to describe, explain and discuss scientific concepts and procedures and to give instructions.</b></li> <li>• <b>Demonstrate comprehension of the terminology used in the discussion and analysis of data and their presentation in graphs, tables and diagrams.</b></li> </ul>

### General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology  
 Adapting to new situations  
 Decision-making  
 Working independently  
 Team work  
 Working in an international environment  
 Working in an interdisciplinary environment  
 Production of new research ideas

Project planning and management  
 Respect for difference and multiculturalism  
 Respect for the natural environment  
 Showing social, professional and ethical responsibility and sensitivity to gender issues  
 Criticism and self-criticism  
 Production of free, creative and inductive thinking  
 .....  
 Others...  
 .....

Search for, analysis and synthesis of data and information, with the use of the necessary technology  
 Working independently

### (3) SYLLABUS

The course introduces the basic terminology used in the fundamental areas of Physics such as Mechanics, Kinematic, Thermodynamics, Electrical Circuits, Electromagnetism, Nuclear Physics and Waves, in one of the foreign languages widely used in literature (English French, German). In addition the course introduces to the main linguistic phenomena and structures found in technical and scholar texts.

### (4) TEACHING and LEARNING METHODS - EVALUATION

<b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i>	Face-to-face	
<b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i>		
<b>TEACHING METHODS</b> <i>The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.  The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>	<b>Activity</b>	<b>Semester workload</b>
	Lectures	52
	Independent Study	45
	Exams	3
	<b>Course total</b>	<b>100</b>
<b>STUDENT PERFORMANCE EVALUATION</b> <i>Description of the evaluation procedure  Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions,</i>	Written examination.	

*open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other*

*Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*

## **(5) ATTACHED BIBLIOGRAPHY**

- Suggested bibliography:

- D. C. Giancoli. (2009) *Physics for Scientists and Engineers for Modern Physics* (4<sup>th</sup> Edition). USA: Pearson Education, Inc.
- D. Halliday and R. Resnik. (2014) *Fundamentals of Physics* (10<sup>th</sup> Edition). USA: John Wiley and Sons, Inc.