



General information	
Academic subject	Physics
Degree course	Science and Management of Maritime Activities
Academic Year	1st
European Credit Transfer and Accumulation System (ECTS)	9
Language	italian
Academic calendar (starting and ending date)	2nd period (March-June)
Attendance	facultative

Professor/ Lecturer	
Name and Surname	Filippo Errico
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Telephone	
Department and address	Physics Department (Via Giovanni Amendola, 173, 70125 Bari BA)
Virtual headquarters	
Tutoring (time and day)	

Syllabus	
Learning Objectives	The course refers to the teaching of Physics for learning the aspects of the discipline mandatory to achieve the overall educational objectives of the course of study. The learning objectives are the acquisition of the aspects of the discipline listed in the contents. Particular attention is paid to the discussion, interpretation and the critical deepening of the results of the acquired theoretical knowledge.
Course prerequisites	1) line, parabola and circle representation in a Cartesian coordinate system, 2) trigonometric, exponential and logarithmic functions 3) area and volumes of main 2D and 3D figures (circle, square, cube) 4) linear and quadratic equation solutions
Contents	Kinematic and Dynamic, Fluids, Thermodynamics, Electricity, Magnetism, Waves
Books and bibliography	1) Lecture notes of the professor 2) Halliday, Robert Resnick "Fondamenti di Fisica"

Additional materials	
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Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
Hours			
72	56	16	153
ECTS			
9	7	2	

Teaching strategy	<p>The course is developed through lectures related to the aspects of the relevant and indispensable discipline for the achievement of the specific educational objectives of the teaching. Lectures are supported by seminars and by exercises and, where possible, an interaction with students through group discussion on the e-learning platform or in the classroom. During the lessons various tools are used to improve lessons, e.g. presentations in power points, diagrams, and everything else deemed useful for improving the effectiveness of the didactics.</p> <p>The course will be based on a blended learning</p>
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Expected learning outcomes	
Knowledge and understanding on:	Acquisition of the methodology needed to know and understand the physics phenomenologies explained during the course.
Applying knowledge and understanding on:	Acquisition of the physics methodology needed for the application of the common analysis tools provided during the course to different physics problem.
Soft skills	<ul style="list-style-type: none"> • <i>Making informed judgments and choices</i> <p>Acquisition and development of the critical study skills of physics phenomena</p> <ul style="list-style-type: none"> • <i>Communicating knowledge and understanding</i> <p>Acquisition of the capability to communicate and discuss physics theses and scientific studies examined critically</p> <ul style="list-style-type: none"> • <i>Capacities to continue learning</i> <p>Acquisition of the methodology necessary for the critical study of physics phenomena, of the most significant literature on the topics covered by study and the most innovative discoveries.</p>

Assessment and feedback	
Methods of assessment	1) Intermediate written exam 2) Written and/or oral final exam

Evaluation criteria	<ul style="list-style-type: none"> • <i>Knowledge and understanding</i> <ul style="list-style-type: none"> ○ Test physics skills and the associate level of understanding • <i>Applying knowledge and understanding</i> <ul style="list-style-type: none"> ○ Capability to understand and solve physics problem • <i>Autonomy of judgment</i> <ul style="list-style-type: none"> ○ Capability to debate about a physics phenomena • <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> ○ Use of the correct and appropriate language treating a physics thesis • <i>Communication skills</i> <ul style="list-style-type: none"> ○ Capability to debate about new discoveries • <i>Capacities to continue learning</i>
Criteria for assessment and attribution of the final mark	Final mark is given in fraction of 30. Above 18 / 30 the exam is considered as passed.
Additional information	