



UNIVERSITÀ
degli STUDI
di CATANIA

DEPARTMENT OF BIOLOGICAL, GEOLOGICAL AND
ENVIRONMENTAL SCIENCES
Bachelor's Degree in Environmental and Natural Sciences
Academic Year 2016/2017 - 1° Year

GENERAL PHYSICS

FIS/02 - 8 CFU - 1° Semester

Teaching Staff

ALESSANDRO PLUCHINO

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LEARNING OBJECTIVES

Understanding the mechanisms of the scientific method and the main physical laws of mechanics, thermodynamics and electromagnetism. Ability to perform simple exercises on the topics of the program.

DETAILED COURSE CONTENT

Fundamental physical quantities and units. Kinematics in one and two dimensions. Laws of Dynamics. Gravitation. Conservation of energy and momentum. Friction forces. Harmonic oscillator. Statics and dynamics of fluids. Calorimetry and Thermodynamics. Electrostatics and electrodynamics. Magnetism and electromagnetism.

TEXTBOOK INFORMATION

- 1) D.C.Giancoli, "Fisica", Ed.Ambrosiana, Milano
 - 2) D.Halliday, R.Resnick, J.Walker, "Fondamenti di Fisica" (sesta ed.), Ed.Ambrosiana, Milano
 - 3) P.J.Nolan, "Fondamenti di Fisica", Ed.Zanichelli, Bologna
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