



UNIVERSITÀ DI PAVIA

Anno Accademico 2021/2022

PHYSICS - PART 1 (SURNAMES L-Z)

Enrollment year	2021/2022
Academic year	2021/2022
Regulations	DM270
Academic discipline	FIS/07 ()
Department	DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"
Course	BIOLOGICAL SCIENCES
Curriculum	PERCORSO COMUNE
Year of study	1°
Period	
ECTS	3
Lesson hours	24 lesson hours
Language	Italian
Activity type	
Teacher	GIULOTTO ENRICO VIRGILIO - 3 ECTS
Prerequisites	The exam can be taken only by students who passed the exam of Mathematics.
Learning outcomes	Learning and mastering the basic notions of classical physics.
Course contents	Acoustics and optics. Law of propagation of elastic waves. Characteristics of sound. Doppler effect. Laws of reflection and refraction. Spherical refracting surface. Thin lenses. Simple and compound microscope and their magnification. Field depth and resolving power of the microscope. Visual acuity. Convergence defects. Electricity and magnetism. Electric charge. Electric field. Electric capacity. Direct current. Ohm's law. Thermal effect of current. Electrolytic conductors. Electrolysis: Faraday's laws. Electrophoresis. Magnetic effect of current. Electromagnetic induction.

Teaching methods

Teacher-led lectures and exercises.

**Recommeneded or required
readings**

F. Borsa, A. Lascialfari, A.M. Gueli, Principi di Fisica, Edises

Other textbooks (English editions available)

J.S. Walker, Fondamenti di Fisica, Pearson

D.C. Giancoli, Fisica, C.E.A.

D. Halliday, R. Resnick, J. Walker, Fondamenti di Fisica, C.E.A.

The exam consists of a written test. The test consists of simple problems and open-ended questions and covers the subjects of the whole course (Part1 + Part 2)

The educational offer is completed by a tutorial project.

