



UNIVERSITÀ DI PAVIA

Anno Accademico 2018/2019

PHYSICS

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| Enrollment year | 2018/2019 |
| Academic year | 2018/2019 |
| Regulations | DM270 |
| Department | DEPARTMENT OF CIVIL ENGINEERING AND ARCHITECTURE |
| Course | CIVIL AND ENVIRONMENTAL ENGINEERING |
| Curriculum | PERCORSO COMUNE |
| Year of study | 1° |
| Period | Annual (01/10/2018 - 14/06/2019) |
| ECTS | 12 |
| Language | Italian |

The activity is split

500449 - **PHYSICS A**

500450 - **PHYSICS B**



UNIVERSITÀ DI PAVIA

Anno Accademico 2018/2019

| PHYSICS A | |
|---------------------|---|
| Enrollment year | 2018/2019 |
| Academic year | 2018/2019 |
| Regulations | DM270 |
| Academic discipline | FIS/01 (EXPERIMENTAL PHYSICS) |
| Department | DEPARTMENT OF CIVIL ENGINEERING AND ARCHITECTURE |
| Course | CIVIL AND ENVIRONMENTAL ENGINEERING |
| Curriculum | PERCORSO COMUNE |
| Year of study | 1° |
| Period | 1st semester (01/10/2018 - 18/01/2019) |
| ECTS | 6 |
| Lesson hours | 53 lesson hours |
| Language | Italian |
| Activity type | WRITTEN AND ORAL TEST |
| Teacher | PIRZIO FEDERICO (titolare) - 6 ECTS |
| Prerequisites | Those required for admission and for understanding basic notions of Calculus, Geometry and Algebra. |
| Learning outcomes | The basic concepts of kinematics, dynamics of point masses and particle systems will be introduced in the first semester; the second semester deals with rigid bodies dynamics and statics, as well as thermodynamics. Students will be trained to problem solving with simple applicative exercises. The course emphasizes the importance of understanding basic principles, and encourages the students to affine their analytic and algebraic techniques for solving the proposed exercises. |
| Course contents | Modulo A (Prof. F. Pirzio, first semester) Units and dimensions. Vectors. Kinematics. Forces and Newton's laws. Work and energy. Angular momentum. Particles systems, momentum and collisions. Gravitation. Oscillations. Elasticity. Waves. |

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| Teaching methods | <p>Lectures (hours/year in lecture theatre): 33</p> <p>Practical class (hours/year in lecture theatre): 20</p> <p>Practicals / Workshops (hours/year in lecture theatre): 0</p> |
| Reccomended or required readings | <p>Serway Jewett, "Fisica per Scienze ed Ingegneria", vol. 1, EdiSES (4a edizione). Lectures notes (mod. A) (A. Agnesi). Official course website: http://www.unipv.it/fis/fisica1_ca/.</p> |
| Assessment methods | <p>Exam consists in both a written and oral test. The minimum mark for admission to the oral part of the exam is 15/30. The final mark is determined by both the oral and written tests.</p> |
| Further information | <p>Exam consists in both a written and oral test. The minimum mark for admission to the oral part of the exam is 15/30. The final mark is determined by both the oral and written tests.</p> |
| Sustainable development goals - Agenda 2030 | <p>\$Ibl legenda sviluppo sostenibile</p> |



UNIVERSITÀ DI PAVIA

Anno Accademico 2018/2019

PHYSICS B

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|----------------------------------|---|
| Enrollment year | 2018/2019 |
| Academic year | 2018/2019 |
| Regulations | DM270 |
| Academic discipline | FIS/01 (EXPERIMENTAL PHYSICS) |
| Department | DEPARTMENT OF CIVIL ENGINEERING AND ARCHITECTURE |
| Course | CIVIL AND ENVIRONMENTAL ENGINEERING |
| Curriculum | PERCORSO COMUNE |
| Year of study | 1° |
| Period | 2nd semester (06/03/2019 - 14/06/2019) |
| ECTS | 6 |
| Lesson hours | 53 lesson hours |
| Language | |
| Activity type | WRITTEN AND ORAL TEST |
| Teacher | PIRZIO FEDERICO (titolare) - 3 ECTS AGNESI ANTONIANGELO - 3 ECTS |
| Prerequisites | |
| Learning outcomes | |
| Course contents | |
| Teaching methods | |
| Reccomended or required readings | |
| Assessment methods | |
| Further information | |
| Sustainable development | |

