

Curricular Component: exclusive to the course ()		Common Axis (X)	Universal Axis ()
Course: ENGINEERING DEGREE		Thematic Core: Engineering Degree	
Name of the Curricular Component: GENERAL AND EXPERIMENTAL PHYSICS II – THEORY AND LABORATORY		Curricular Component Code: ENEC50397	
Workload: 5 (in credits)	(X) Classroom (X) Laboratory () Distance Learning	Stage: 2nd	
<p>Summary: Study of Mechanics and introduction to Thermodynamics. Applications of Newton's Laws. Work of a force and of conservative forces, and work of non-conservative forces. Kinetic and Potential Energies, Mechanical Energy, and conservation of energy. Momentum and collisions in 1D and 2D. Torque, angular momentum, and equilibrium. Simple Harmonic Motion (SHM) and simple pendulum. Introduction to Thermodynamics: 1st Law of Thermodynamics.</p>			
<p><i>Basic Bibliography:</i></p> <ul style="list-style-type: none"> - HALLIDAY, D.; RESNICK, R.; WALKER, J. Fundamentals of Physics. Vol. 1 and Vol. 2. 10th edition. Wiley & Sons, 2013. - SEARS and ZEMANSKY. University Physics. Vol 1. Mechanics, 13th edition, Pearson, 2013. 			
<p><i>Complementary Bibliography:</i></p> <p>SERWAY, R. A. and JEWET, J. W. Principles of Physics: a calculus based text. 3rd Edition, Harcourt College Publishers, 2001</p>			