

Course title :

Course Basic Information			
Academic Unit:	Faculty of Civil Engineering		
Course title:	Physics with Mechanics		
Level:	Bachelor		
Course Status:	Mandatory		
Year of Study:	Year 1, Semester 1		
Number of Classes per Week:	2+2		
ECTS Credits:	6		
Time /Location:	According to the Timetable		
Teacher:	Prof. Dr Skender Kabashi		
Contact Details:	skender.kabashi@uni-pr.edu		
Course Description:	Physics and measurement. Motion in two and three dimensions. Newton's laws. Work and Kinetic energy. Potential energy and conservation of energy. The theory of gravity. Oscillatory motion, waves. Fluid properties. Temperature and ideal gases. Thermodynamics. Electric field. Magnetic field. Electromagnetic waves. Light, mirrors and lenses. Interference, diffraction and polarization of light. Quantum physics.		
Course Goals:	Using the physical laws to solve the basic problems of engineering; To introduce students to the basic concepts of kinematics, dynamics, thermodynamic etc.; Using the physical laws of physics in modeling and solving specific engineering problems; Students should understand the basic knowledge of physics to the level of general engineering culture; Knowledge of physics at the basic level, using the methods of mathematical analysis		
Expected Learning Outcomes:	To be able to coherence between the sizes and phenomenon of physics and apply them during the solving of technical problems. To develop skills of independent work and be able to make proper conclusions. To finish practical measurements in the laboratory, to analyze the gained results and to interpret them etc.		
Student Workload (should be in compliance with student's Learning Outcomes)			
Activity	Hours	Day/ Week	Total
Lectures	2	15	30
Theory/ Lab Work/Exercises	2	15	30
Practical Work			
Study for intermediate test			
Consultations with the tecaher	2	15	30
Field Work			

Test, seminar paper	2	5	10
Homework	2	5	10
Self-study (library or home)	3	6	24
Preparation for final exam	10	1	10
Assessment time (test, quiz, final exam)	3	2	6
Projects, presentations, etc.			
Total			150

Teaching Methods:	<ul style="list-style-type: none"> - Lecture - Discussion during lectures - Exercises - Work in group
Assessment Methods:	<p>In evaluation, the percentage of the attendance of each partial evaluation in the final evaluation must be determined. One of the ways of evaluation would be:</p> <p>First Evaluation: 20%</p> <p>Second Evaluation: 20%</p> <p>Homework or other engagement: 10%</p> <p>Attendance 5%</p> <p>Final Exam 45%</p> <p>Total 100%</p>
Primary Literature:	<ol style="list-style-type: none"> 1. S. Skenderi dhe R. Maliqi, Fizika për studentët e Fakultetve teknike, ligjerata Prishtinë, 2005 2. S. Skenderi dhe R. Maliqi, Përmbledhje detyrash nga Fizika, Prishtinë 2003
Additional Literature:	<ol style="list-style-type: none"> 1. D. Halliday, R. Resnick, J. Walker, Fundamentals of Physics, John Wiley & Sons, 2001. 2. D. Giancoli, Physics for Scientist and engineers, Practice Hall, New Jersey, 2000

Designed teaching plan	
Week	Title of the Lecture
Week 1:	System SI. Physical sizes and measurements. Njotonit law applications in mechanics.
Week 2:	Conservation laws. Work and energy
Week 3:	The applications of physical laws and their interpretation in hydrostatic and hydrodynamics
Week 4:	Thermal and thermal equilibrium with examples of application in construction
Week 5:	The transfer of heat and moisture. Three methods of heat transfer with concrete examples in construction facilities
Week 6:	Phase transitions and heat exchange during phase transitions
Week 7:	Thermodynamics and the laws of gases
Week 8:	Mechanical oscillations. Oscillation subdued and forced. Mechanical resonances.
Week 9:	Mechanical waves. Spreading. Reflection, istors, energy.

Week 10:	Acoustics. Sound waves, obedience and noise, echo
Week 11:	Electric and magnetic phenomena. Omit law, Weatstonit Bridge.
Week 12:	Optics and optical methods for the study of materials. Laws of light. Statements and lentils.
Week 13:	Interference, diffraction and polarization of light
Week 14:	Interference, diffraction and polarization of light
Week 15:	Laws of radiation and lasers

Academic Policies and Code of Conduct

- Regular attendance of lectures and exercises
- Being quiet during the sessions
- Shutting down mobile phones
- Being on time

Note | If a student has more than 3 class assignments evaluated below 50% he/she loses the right on taking the final exam. Evaluation is done from 0-100 %.