

Faculty of Forestry.....				
Study programme:	Forestry	Degree level: Bachelor's degree full-time/part-time programme:		
Specialization		Diploma path: general academic-		
Module name:	Physics			
Module type:	obligatory	Semester: I	ECTS	4
No. of hrs in semester:	L -15	C -	LC- P-15	SW- S-
Prerequisites:	<i>Knowledge on the level of high school</i>			
Teaching methods:	lecture and classes	Assessment:	Credit	
		lecture - oral exam, tests		
Aims and objectives:	<i>Student will get a deepened knowledge from all basic sections of physics in order to comprehend a basic physics of the forestry</i>			
Module content:	<i>Fundamental physical quantities. International System of Units SI. Space and time in classical mechanics. Kinematics and dynamics of the material point. Gravitation. Work, energy and power. Dynamics of rigid body. Stress and deformation. The laws of Thermodynamics. Hydrodynamics. Elements of acoustic phenomena. Optics. Electric and magnetic properties of matter. Electromagnetic waves. Photons, electrons and atoms. Elements of Nuclear Physics. Elements of Mechanics of Relativity. Elements of Quantum Mechanics.</i>			
Learning outcomes	<i>Student should formulate observed phenomena in forestry in the context of basic rules of physics</i>			<i>Relevance to the programme learning outcomes</i>
EK1	Recognises phenomenas and physical laws			L1_WO1
EK2	Defines the physical quatities			L1_WO1

EK3	Analyses of a given physical problem	L1_WO1	
EK4	Apply a proper strategy and methodology for the problem	L1_WO1	
EK5	Identifies physical the phenomenas of physics in the forest environment	L1_01,L1_KO1	
student workload	lecture attendance	15X1h	15
	participation in classes, laboratory classes, etc.	15X1h	15
	participation in consulting	5X1h	5
	preparation for tests	10X1h	10
	preparation for evaluation and attendance	5X2h	10
	preparation for and participation in exams/tests	7+1h	8
		TOTAL:	60h
quantitative indicators	Student workload - activities that require direct teacher participation	38	ECTS 1
	Student workload - practical skills activities 15+5+10+8	45	
basic references:	David Halliday I inni, Podstawy Fizyki, T. 1. Mechanika, PWN, 2009, M. Skorko, Fizyka, PWN, 1982		
supplementary references:	Richard Feynman I inni, Feynmana wykłady z fizyki Tom 1 - 5, PWN, 1995, Paul G. Hewitt, Fizyka wokół nas, PWN, 2010		
learning outcomes	<i>methods of assessing learning outcomes</i>	type of class (if more than one) where the outcomes are assessed	
EK1	evaluation for the lecture content	L	
EK2	evaluating the student's reports and preparation for the classes, tests on lecture content	L,P	
EK3	evaluating the student's reports, tests on lecture content	L	

EK4	evaluating the student's reports and performance in classes	P
Department:	Faculty of Forestry, Technical University of Bialystok, Hajnowka	Group instructors: dr Michal Piwnik
Date:	12-02-2012	Coordinator: dr Michal Piwnik

L - lecture    C - class    LC - laboratory class    P-project  
 SW - specialization workshop    S - seminar