

SYLLABUS

Basic data of the course:	
University/Faculty:	University of Applied Sciences in Ferizaj/ Faculty of Engineering and Informatics
Academic unit:	Faculty of Engineering and Informatics
Course title:	Science on sustainability
Level:	Bachelor
Course status:	Obligatory
Year of studies:	I- Second Semester
Number of hours per week:	2+2
Value in credit – ECTS:	6
Time / location:	
Course teacher:	Halit Mehmeti
Contact details:	Laboratory halit.mehmeti@ushaf.net
Course Description	
	<i>Duties of material sustainability. Sections, strains and deformations. Diagram, load-deformation. Introduction to sustainability in fatigue. Time behavior of variable loads, and security constraints allowed. Attracting and printing, cutting, area moments of the first and second action, Momentum resist bending and twisting, Simple load, voltage distribution in the plane and the angle of curvature. Distribution of cargo, deforming, breaking the elastic and plastic deformation. Composite loads, polyaxial tensions and deforming condition compared with tensions. Community work, the principles of virtual displacements and virtual forces.</i>
Objectives of the course:	<i>Ability to analysis loads and dimensions of mechanical parts safe allowable loads and deformations. Knowledge of basic concepts of mechanics. Overview of material properties, unless they are used for dimensioning. Ability to calculate simple types of cargo. Ability to calculate moment's border. Ability to calculate the curvature bodies subject. Ability to calculate bodies loaded in torsion. The ability to calculate risk breaking the components of the calculation considering connections loaded. Knowledge of the deformation</i>

	<i>energy.</i>		
Expected outcomes from learning:	<p><i>After completing this course the student will be able to:</i></p> <ul style="list-style-type: none"> • <i>To understand the stress and strains to which the subject material.</i> • <i>To make the calculation of geometric parameters such as center of gravity, moments static inertia, principal moments of inertia.</i> • <i>Make dimensioning of material, which is subject to axial tension, torsion, and flexion.</i> • <i>Use analytical methods for calculating graphics and material.</i> 		
Student contribution (which should correspond to the student's learning)			
Activity	Hour	Day / week	Total
Lectures	2	15	30
Theoretical / laboratory exercises	2	15	30
Practical work	-	-	
Contacts with the teacher / consultations	1	15	15
Field exercises	-	-	-
Tests, seminars	2	2	4
Homework	1	15	15
Student self time study	2	15	30
Final exam preparation	1	10	10
Time spent in evaluation (tests, quizzes, final exam)			
Projects, presentations,etc	2	8	16
Total			150
Teaching methodology:	<i>Lectures, seminars, discussions, group work and graphic works</i>		
Evaluation methods:	<ul style="list-style-type: none"> • <i>First assessment: 15%</i> • <i>Second assessment: 15%</i> • <i>Seminars and laboratory exercises 10%</i> • <i>Final exam 60%</i> <p><i>Or final exam:</i></p> <ul style="list-style-type: none"> • <i>Final Exam 90%</i> • <i>Seminars and laboratory exercises 10%</i> 		

Literature	
Basic literature:	<ol style="list-style-type: none"> 1. Xhevat.Perjuci, <i>Rezistenca e materialeve I, Prishtinë 1994.</i> 2. Xhevat.Perjuci, <i>Rezistenca e materialeve II, Prishtinë 1995.</i> 3. Xhevat.Perjuci, <i>Rezistenca e materialeve I – Përmbledhje detyrash të zgjedhura, Prishtinë 1998.</i>
Additional literature:	<ol style="list-style-type: none"> 1. Xhevat.Perjuci, Shaban Buza, <i>Rezistenca e materialeve II – Përmbledhje detyrash të zgjidhura, Prishtinë 1998.</i> 2. Jones, Robert M, <i>Mechanics of Composite Materials, 2nd Ed, Taylor & Francis, 1999, Philadelphia, Pa.</i>
Designed lesson plan :	
Week	The lecture to be held
Week one:	<i>Objective of the course - Syllabus; Introduction to science on sustainability</i>
Week two:	<i>Duties of material sustainability.</i>
Week three:	<i>Sections, strains and deformations.</i>
Week four:	<i>Diagram, load-deformation.</i>
Week five:	<i>Introduction to sustainability in fatigue.</i>
Week six:	<i>Time behavior of variable loads, constraints allowed and security.</i>
Week seven:	<i>First assessment</i>
Week eight:	<i>Attracting and printing, cutting, area moments of the first and second action</i>
Week nine:	<i>Momentum resist bending and twisting.</i>
Week ten:	<i>Simple load, voltage distribution in the plane and the angle of curvature.</i>
Week eleven:	<i>Distribution of cargo, deforming, breaking the elastic and plastic deformation</i>
Week twelve:	<i>Composite loads, polyaxial tensions and deforming condition compared with tensions</i>

Week thirteen:	<i>Community work, the principles of virtual displacements and virtual forces.</i>
Week fourteen:	<i>Second assessment</i>
Week fifteen:	<i>Repetition and recapitulation of the matter.</i>

Academic policies and rules of conduct	
<i>The teacher sets the criteria for regular attendance at lectures and exercises, rules of conduct such as: keeping calm in the classroom, disconnection of cellular phones, entrance to the class on time, etc.</i>	