

The basic course information:			
Academic unit:	Faculty of Engineering and Informatics Industrial Engineering with Informatics		
Title of the subject:	Machine Elements I		
Level:	Bachelor		
Course Status:	Obligatory		
Year of studies:	I		
Number of hours per week:	4		
Value of Credits - ECTS:	5		
Time / location:			
Course lecturer:	Flamur Salihu		
Contact details:	Flamur.salihu@ushaf.net		
<b>Course description:</b>			
	<i>This course will provide students with the basic knowledge and concepts of calculating tolerances, loads, stresses and the safety factors of various mechanical elements using different methods of solving practical problems in engineering.</i>		
<b>Objectives of the course:</b>			
	<i>The aim of the course is to prepare students with the basic and advanced principles of using and constructing various machine parts based on the analytical calculations and constructive choices.</i>		
<b>Learning outcomes:</b>			
	<p><i>After the completion of this module, students will be able to:</i></p> <ul style="list-style-type: none"> <li><i>• know the concept of machine elements tolerances, the operating loads as well as the safety factors of various machine elements</i></li> <li><i>• understand the calculations of tolerances, stresses, loads and safety factors of various machine elements (threads, bolts, belts, transmitters, etc.).</i></li> <li><i>• choose the right methods for calculating machine elements,</i></li> <li><i>• apply appropriate theoretical methods in solving practical problems.</i></li> </ul>		
Contribution to the student load (which must correspond with learning outcomes)			
Activity	Hour	Day/week	In total
Lectures with numerical exercises	4	15	60
Internship			
Contacts with teacher / consultations	1	3	3
Field exercises			
Midterm, seminars and projects.		15	15
Homework			
Self-learning time student (at the library or at home)	3	15	45
Final preparation for the exam		5	5

Time spent on evaluation (tests, quiz and final exam)		3	3
Projects and presentations.			
<b>Total</b>			<b>131</b>
<b>Teaching methodology:</b>			
	<i>Lectures combined with exercises</i>		
<b>Assessment methods:</b>			
	<i>First assessment 30%</i> <i>Second assessment 30%</i> <i>Third assessment 30%</i> <i>Seminar papers (design assignments) 10%</i> <b>Or through final exam</b> <i>Final exam 90 %</i> <i>Seminar papers (design assignments) 10%</i>		
<b>Literature</b>			
<b>Basic Literature:</b>	<ol style="list-style-type: none"> <li>1. <i>Dr sc Nijazi IBRAHIMI, DETALET E MAKINAVE I, Prishtinë 2004.</i></li> <li>2. <i>Dr sc Nijazi IBRAHIMI DETALET E MAKINAVE II/1, Prishtinë 2006.</i></li> <li>3. <i>Dr sc Sadullah AVDIU, PRAKTIKUMI I DHE II, Prishtinë 2003.</i></li> <li>4. <i>Dr sc Nijazi IBRAHIMI, DETALET E MAKINAVE I dhe II, Përmbledhje e detyrave të zgjidhura, Prishtinë, 2007.</i></li> </ol>		
<b>Supplementary Literature:</b>	<ol style="list-style-type: none"> <li>5. <i>Nieman: Maschinenelemente, Band I &amp; II.</i></li> <li>6. <i>Jashari I., Pllana G.: Detalet e makinave.</i></li> </ol>		

<b>Designed learning plan:</b>	
<b>Week</b>	<b>Lectures and exercises to be held</b>
<b>Week one:</b>	<b><i>The main dimensions of machine elements. Tolerances. Position of tolerances fields. Types of fits.</i></b>
<b>Week two:</b>	<b><i>Carrying capacity of machine elements and machine elements loaded with static loads.</i></b>
<b>Week three:</b>	<b><i>Numerical exercises (tolerances).</i></b>
<b>Week four:</b>	<b><i>Mechanical elements Joints (power screw). Loads, stresses and safety factor of power screw.</i></b> <b><i>First (I) assessment (Held after the fourth week)</i></b>
<b>Week five:</b>	<b><i>Numerical Exercises (power screw).</i></b>
<b>Week six:</b>	<b><i>Bolted connections.</i></b>
<b>Week seven:</b>	<b><i>Load, stresses and safety factors of bolts.</i></b>
<b>Week eight:</b>	<b><i>Numerical exercises (Bolted connections).</i></b>

<b>Week nine:</b>	<b><i>Rivets joints and welded joints</i></b>
<b>Week ten:</b>	<b><i>Springs. Pipes. Second (II) assessment (Held after the tenth week)</i></b>
<b>Week eleven:</b>	<b><i>Transmitters. Friction transmitters.</i></b>
<b>Week twelve:</b>	<b><i>Belt transmitters. (Belt calculation)</i></b>
<b>Week thirteen:</b>	<b><i>Chain transmitters. (Chain Calculation)</i></b>
<b>Week fourteen:</b>	<b><i>Numerical exercises (belts and chains).</i></b>
<b>Week fifteen:</b>	<b><i>III (third) assessment.</i></b>

**Academic policies and rules of conduct:**

*Regular attendance of lectures and exercises is necessary, as well as active participation with discussion and solution of tasks. Not impeding the progress required for learning using mobile phones turned off or in silent mode.*