

NAME OF THE COURSE		Machine elements I					
Code	PMT164	Year of study	2				
Course teacher	Tomislav Matić	Credits (ECTS)	4				
Associate teachers	Endri Garafulić	Type of instruction (number of hours)	L	S	E	F	
			30		15		
Status of the course	Compulsory	Percentage of application of e-learning					
COURSE DESCRIPTION							
Course objectives	Adopting knowledge necessary to understand the principles of machine elements operation and their design.						
Course enrolment requirements and entry competences required for the course	None.						
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	1. Identify the load acting on the machine elements. 2. Explain the design of fasteners, depending on its load. 3. Calculate coupling elements. 4. Explain the different solutions of the shaft-hub connections. 5. Describe the types of springs						
Course content broken down in detail by weekly class schedule (syllabus)	Week 1: Types of loads. Static load. Dynamic load. Week 2: Stress and strain of structure elements. Week 3: Woehler's diagram. Smith's diagram. Week 4: Material characteristics. Allowable stresses. Week 5: Fasteners and joints. The calculation of screw connections. Week 6: The calculation of screw connections (continued). Power screws. Week 7: Colloquium. Week 8: Interference fit assemblies (shrink fit). Week 9: Taper fit. Week 10: Shaft-hub connections. Week 11: Pins. Week 12: Springs. Week 13: Shafts. Week 14: Shaft (continued). Week 15: Colloquium.						
Format of instruction	<input checked="" type="checkbox"/> lectures <input type="checkbox"/> seminars and workshops <input checked="" type="checkbox"/> exercises <input type="checkbox"/> <i>on line</i> in entirety <input type="checkbox"/> partial e-learning <input type="checkbox"/> field work			<input type="checkbox"/> independent assignments <input type="checkbox"/> multimedia <input type="checkbox"/> laboratory <input type="checkbox"/> work with mentor <input type="checkbox"/> (other)			
Student responsibilities	Class attendance, accomplishing design project, independent study and literature reading, accessing colloquia and/or written and oral examination.						
Screening student work (name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)	Class attendance	1	Research		Practical training		
	Experimental work		Report		Attending the exercises	1	
	Essay		Seminar essay		Independent learning	1,5	
	Tests		Oral exam		Homework (programs)	0,5	
	Written exam		Project		(Other)		
Grading and evaluating student work in class and at the final exam	Design project have to be successfully completed. Two colloquiums or written and oral exams in the examination period. Students which achieve more than 50% result of each colloquium or at written/oral exam will have successfully completed the course. Depending of the achieved result percentage at colloquium or at written/oral exam final grades are as follows: 50 - 62% - sufficient (2) 63-75% - good (3) 76-87% - very good (4) 88-100% - excellent (5)						
Required literature (available in the library and via other media)	Title			Number of copies in the library	Availability via other media		
	1. Krstulović A., Elementi i mehanizmi strojeva, interna skripta (predavanja)						

Optional literature (at the time of submission of study programme proposal)	1. Jelaska D., Elementi strojeva I dio, FESB - Split, Udžbenici Sveučilišta u Splitu, Split, 2007. 2. Decker K.H., Elementi strojeva, Golden marketing-Tehnička knjiga, Zagreb, 2006. 3. Krstulović A., Jerčić I., Zbirka zadataka iz elemenata strojeva, Liber, Zagreb, 1981.		
Quality assurance methods that ensure the acquisition of exit competences	Conducting an anonymous student surveys, talk with students, analyses the success of students on tests and exams, self-assessment.		
Other (as the proposer wishes to add)			