

Add. 3		Course program for the first, second and third level (cycle) of studies			
1.	Course title	STRENGTH OF MATERIALS			
2.	Code	166			
3.	Study group(s)	PI, TML, TI, HIMV, MSKI, IIM, MV, EE, MHT, AUS			
4.	The organizer of the study program (unit, institute, department)	Faculty of Mechanical Engineering - Skopje, Ss. Cyril and Methodius University in Skopje			
5.	Level (first, second, third)	First			
6.	Academic year / semester	Summer term	7.	ECTS credits	6
8.	Instructor	Prof. Kocho Angushev, Ph. D. Associate prof. Zlatko Petreski, Ph. D. Associate prof. Viktor Gavriloski, Ph. D.			
9.	Prerequisites	/			
10.	Course objectives (competences):  Study of strain-stress condition, understanding basic types of stresses, calculation and design of elements and structures under basic types of stress.				
11.	Course content:  Stresses, strain, Hooke's law. One dimensional stress. Stresses from own weight, Temperature stresses and prestressing. Statically indeterminate axial structures. Two-dimensional stress, shear stresses. Torsion, strength calculations for torsion. Bending of simple beam, pure bending and forces bending. Shear stresses. Strength calculations for bending. Elastic deformation for simple beam, the method of superposition for determination of elastic deformations. Deformation of the statically indeterminate beam. Structural stability, Euler's force. Yielding and reapture laws, composed stresses. Composed bending with tensile axial force. Composed circular bending. Composed bending with torsion.				
12.	Study methods:  interactive lectures, auditory practice and/or laboratory practice, self-running and/or team work projects, self-learning				
13.	Total hours	6 ECTS x 30 Hours = 180 Hours			
14.	Hours allocation per activity:	30 + 45 + 0 + 45 + 60 = 180 Hours			
15.	Lectures/Lab	15.1.	Lectures	30 Hours	
		15.2.	Lab (student work)	45 Hours	
16.	Project Work/Assignments	16.1.	Project assignments	0	
		16.2.	Individual assignments	45 Hours	
		16.3.	Self-study	60 Hours	
17.	Points/Marks:				
	17.1.	Tests			80 points
	17.2.	Projects			15 points
	17.3.	Attendance			5 points
18.	Grading scale	Under 50		5 (five) (F)	
		51 - 60 points		6 (six) (E)	
		61 - 70 points		7 (seven) (D)	
		71 - 80 points		8 (eight) (C)	
		81 - 90 points		9 (nine) (B)	
		91 - 100 points		10 (ten) (A)	
19.	Prerequisites for taking the final exam	completed activities 15.1 и 16.2			
20.	Language of Instruction	Macedonian			

21.	Course evaluation	Student questionnaire
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22.	Textbooks				
22.1.	Instruction materials				
	No.	Author	Title	Publisher	Year
	1.	Ananie Ilievski Ljubica Todorovska – Azievaska Nake Babamov	Strength of materials	Script, Faculty of Mechanical Engineering - Skopje	2004
	2.	Kocho Angushev Zlatko Petreski Viktor Gavriloski Goce Tasevski	Strength of materials - exams	Script, Faculty of Mechanical Engineering - Skopje	2008
22.2.	Supplemental Instruction Materials				
	No.	Author	Title	Publisher	Year
	1.				
	2.				
	3.				