

<b>Study program / course:</b> Mechanical Engineering				
<b>Type and level of study:</b> Bachelor academic studies				
<b>Course:</b> Reliability of mechanical systems				
<b>Lecturers:</b> Dobrivoje M. Ćatić, Ph.D.				
<b>Status of course:</b> Elective for module M <sub>2</sub> , VI semester				
<b>Number of ECTS:</b> 6				
<b>Precondition:</b> None				
<b>The objective of course</b> Acquirement of knowledge from areas of reliability mechanical systems and creation of possibilities for practice use that of knowledge in all activities future mechanical engineers where's that necessary.				
<b>The outcome of course</b> Student will after laying the test from this course know how to apply the acquirements in practice. He will be able to participate equally in team work which refers on solving problems from area of reliability and generally quality of products. Reviewing the problem from the aspect of reliability and determination of different parameters will enable argumented dispute and retrieving conclusions base on facts.				
<b>Syllabus</b> <b>Theoretical study</b> 1. Introduction and basics concepts of reliability, 2. Parameters of reliability, 3. Models of failure and models of distribution time of work until failure, 4. Determination of laws distribution time of work until failure, 5. Reliability of systems, 6. Physical-chemical basics appearance of failure, 7. Methods for increasing reliability of mechanical systems.				
<b>Practical classes</b> 1. Auditorial and labaratorial practical classes from areas predicted with contents of course. 2. Independent production and defense of three domestic assignments from models of distribution, determination laws of distribution time of work until failure and reliability of systems.				
<b>Recommended reading</b> 1. Jovičić S.: Basics of reliability mechanical constructions, Naučna knjiga, Beograd, 1990., 164 p. 2. Ivanović G., Stanivuković D.: Reliability technical systems, collection of resolved tasks, Faculty of Mechanical Engineering, Beograd, 1987., 371 p. 3. Ćatić, D.: Development and application of methods of theory of reliability, Monograph, Faculty of Mechanical Engineering from Kragujevac, Kragujevac, 2005., 241 p.				
The number of hours of active teaching:				Other classes:
Theory: 2	Practical classes: 1.6	Other forms of teaching: 0.4	Research study: 0	1
<b>Methods of teaching</b> Lessons, auditorial and laboratorial practical classes, independent work, summary of practices.				
<b>Evaluation of knowledge</b>				
<b>Pre-final exam obligations</b>	<b>points</b>	<b>Final exam</b>	<b>points</b>	
Activities during the classes:	9	Written exam	30	
Practical classes:	21			
Colloquiums(s) :	40			
Seminar(s) :				