

<b>Study program / course:</b> Mechanical Engineering			
<b>Type and level of study:</b> Bachelor academic studies			
<b>Course:</b> Maintenance Engineering			
<b>Lecturers:</b> Jeremić, M. Branislav; Todorović, M. Petar			
<b>Status of course:</b> Obligatory for module M <sub>6</sub> , VI semester			
<b>Number of ECTS:</b> 6			
<b>Precondition:</b> None			
<b>The objective of course</b> Course is configured in a way to introduce students with basics of Maintenance Engineering of Technical systems, with the purpose and significance of the maintaining function in modern industrial practice. This is foremost related to: the place, significance and organization of maintaining system depending on type of working activities and company's size, the maintaining concepts, maintaining technologies, the basic metrics within maintenance, resource controlling and integration, and efficiency evaluation.			
<b>The outcome of course</b> The students should be able to understand the role of Maintenance Engineering of Technical systems, its basic principals and terminologies as same as introducing of basic methods which are used in the field of maintenance. Ability of creative and independent work within maintenance function in various industrial fields, communal and public companies, small and medium companies and similar activities.			
<b>Syllabus</b> <b>Theoretical study</b> The Basics of Maintenance Engineering, Techno-economical Aspect of Maintenance, Characteristics of Technical Systems, Maintenance and Efficiency of Technical systems, Basic Maintenance Methods, Unplanned (Corrective), Planned (time based and condition based maintenance), Concept of Technical Diagnostic, Maintenance System Organization and Management, Information Systems within Maintenance, Quality and Safety within Maintenance, Maintenance costs and evaluation of efficiency, Modern Maintenance Methods, TPM, proactive, RCM, WCM.			
<b>Recommended reading</b> <ol style="list-style-type: none"> <li>1. Todorović B. Jovan, Inženjerstvo održavanja tehničkih sistema, Institut za istraživanja i projektovanja u privredi, 2006.</li> <li>2. Jeremić B., Maintenance Engineering, script</li> </ol>			
The number of hours of active teaching:			Other classes:
Theory: 3	Practical classes: 0.6	Other forms of teaching: 0.4	Research study: 0
<b>Methods of teaching</b> Teaching is performed through lectures, auditorium and laboratory exercises. For teaching presentation a modern teaching facilities-video presentations are used. For each teaching field a variety of different industrial field examples are taken in consideration through different case studies. In this way students are capable to obtain a very wide range of practical techno-management knowledge (metrics of effectiveness and energetic efficiency of technical systems, maintenance methods and technologies, planning, organization and maintaining system management, etc.).			
<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:	<b>10</b>	Writing exam	
Practical classes:	<b>10</b>	Verbal exam	<b>30</b>
Colloquiums(s) :	<b>35</b>		
Seminar(s) :	<b>15</b>		