

<b>Study program:</b> Environmental Protection			
<b>Course title:</b> Technical Mechanics			
<b>Professor/assistant:</b> Boban Cvetanović			
<b>Type of course:</b> compulsory			
<b>ECTS credits:</b> 8			
<b>Pre-requisites:</b> -			
<b>Aims of the course:</b> Prepare students to: introduce the basic principles and methods of mechanics and their application in analyzing static and dynamic systems.			
<b>Learning outcomes:</b> Student will be able to: acquire the knowledge of mechanics that is necessary for understanding stationary and non-stationary processes of interest in environmental protection, which can be further developed and applied in other vocational subjects and through practical work.			
<b>Syllabus</b>			
<u>Theoretical part</u> Force balance, the basic principles of statics. Bonds and response relationship. Basic equations of equilibrium. Kinematics of a point: the system of reference, vectors of position, velocity and acceleration of the material point. Newton's laws of motion, the differential equations of motion. Work, energy and power, conservation of energy.			
<u>Practical part</u> Application of theoretical knowledge for solving specific practical examples with necessary instructions for certain types of tasks.			
<b>Literature</b>			
<ol style="list-style-type: none"> <li>1. Stamenkovic, S., <i>Static</i>, College of Applied Technical Sciences Nis, Nis, 2004.</li> <li>2. Stamenkovic, S., <i>Kinematics</i>, College of Applied Technical Sciences Nis, Nis, 2004.</li> <li>3. Stamenkovic, S., <i>Dynamics</i>, College of Applied Technical Sciences Nis, Nis, 2004.</li> </ol>			
<b>Number of active classes</b>			Other forms of teaching:
Lectures: 2	Practical classes: 3	Research work:	
<b>Teaching methods</b> Combination of interactive approach with practical problem solving.			
<b>Grading system</b> (maximum 100 points), <b>grading scale</b> from 5 to 10: below 51 points grade 5, grade 6 from 51-60 points, grade 7 from 61-70 points, grade 8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91-100 points.			
<b>Pre-exam obligations</b>	<b>points</b>	<b>Final exam</b>	<b>points</b>
activity during theoretical lectures	-	written exam	<b>30</b>
practical training	<b>5</b>	oral exam	-
colloquium(s)/tests	<b>35/30</b>		
<b>Sum</b>	<b>70</b>	<b>Sum</b>	<b>30</b>