

## Subject Title: Bridges

Basic data of the course	
Academic unit	Faculty of civil engineering
headline:	Bridges
Level:	Master
status	O
Year of study	Year (I), semester II ()
Number of hours by week	3+0
Value of credit – ECTS:	6
time / location:	According schedule
professor:	Prof.asoc.Dr. Cene Krasniqi
Contact details:	e-mail: <a href="mailto:cene.krasniqi@uni-pr.edu">cene.krasniqi@uni-pr.edu</a>
Course description	
Course description	<p>The subject Bridges includes knowledge from the history of bridges, (up to modern bridges) their types and characteristics</p> <p>Descriptions of visibility as well as the choice of position, system and shape of the bridge depending on the obstacle and other circumstances. The design stages of a bridge will be described as well as the parameters that determine the optimal solutions. In the following we will introduce the elements of the provision, with special emphasis on the types of structures above whether of BA, steel, prestressed concrete or mix and under the structure. The main elements of bridge will be interpreted and evaluated.</p> <p>Finally, arch and suspension bridges as well as some bridge construction technologies will be described.</p>
Purpose of course:	<p>Course objectives: General knowledge on bridges from the beginning as well as those of modern times. To create knowledge on the circumstances and conditions of construction of these facilities in us, in the region and in the world. Familiarity with the systems and forms of bridges, their main characteristics. Also to know the role and function of the main elements of the bridge, under the structure and above the structure.</p>
Expected results of learning	<p>After completion of this course students must have the skills to:</p> <ol style="list-style-type: none"> <li>1. Be able to know the types of certain bridges, time and technology of construction, materials used, static systems, as well as their cross sections</li> <li>2. Understand the design stages and their content</li> <li>3 To inform the circumstances and conditions-restrictions which affect the acquisition of a type of bridge.</li> </ol>

	<p>4. Understand static bridge systems and the cases when they are applied</p> <p>5. Understand the main elements of the bridge, their types and function.</p> <p>6. Describe the accompanying elements of the bridge</p> <p>7. Know which combinations of loads- actions to apply to certain bridge cases.</p> <p>8. For the given task - the obstacle of a bridge to identify the challenges as well as to propose their idea for solutions.</p>		
<b>Contribution of student assignment (should correspond with results of learning of students)</b>			
<b>Activity</b>	<b>hour</b>	<b>Day/week</b>	<b>total</b>
lecture	3	15	45
Theoretical/laboratory exercise			0
Practical work			0
Contact with professor / consult	2	5	10
Exercise in site	5	1	5
Colloquium, seminar	5	2	10
homework	5	2	10
Student independent study time (in library or at home)	1	15	15
Final preparation for exam	15	1	15
Time for evaluation (test, quiz, final exam)	10	2	20
Projects, presentation, etc	10	2	20
<b>Total</b>			<b>150</b>
<b>Methodology of teaching:</b>	<i>Lectures, presentations and discussions within hours, field visits on bridges and group seminars</i>		
<b>Evaluation method:</b>	<p>Evaluating of engagement and will be:</p> <p>Regular attendance: 10%</p> <p>Participation in site visits 5%</p> <p>Participation in consultations - conversation 15%</p> <p>Colloquia (or seminar work) 2 * 10%</p> <p>Final exam (written test) 50%</p> <p>Total 100% Total 100%</p>		
<b>Literature</b>			
<b>Basic bibliography:</b>	<p>1 Cene Krasniqi/ Ali Muriciligjerata te autorizuar</p> <p>2.A.Vokshi, A. Muriqi--Konstruktionet e urave metalike (dispense)</p> <p>3 Shaban Perjuci Urat e Betonit ( dispence )</p>		
<b>Extra bibliography:</b>	<p>1 Bridge Engineering Handbook</p> <p>2.B.Çeku, P. Çerepi, E.Gjadri-- Ura dhe tunele</p> <p>3. Jure Radic -Masivnimostovi</p> <p>4.Christian Menn Shtahlbeton-brucken</p> <p>.B.Stipanic, D.Budevac --Čelični Mostovi.Wai Fah Chen, Lian Duan --</p> <p>5.Sukhen Chatterjee--The Design of Modern</p>		

	SteelBridges 6.Drago Horvatić--Spregnutekonstrukcije- Čelik Beton 6.Eurocode
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<b>Designed plan of teaching:</b>	
<b>week</b>	<b>Lecture will be complete according to the scheme</b>
<b>Week 1</b>	Importance of bridges, description of historical development, and classification of bridges
<b>Week 2</b>	Bridge visibility, types of obstacles and bridge traffic - function
<b>Week 3</b>	Key elements of bridges - depending on the system
<b>Week 4</b>	Cross sections of reinforced concrete bridges
<b>Week 5</b>	Under the bridge structure,
<b>Week 6</b>	Arched bridges and suspension bridges - their bases
<b>Week 7</b>	Elements of the general provision of the bridge
<b>Week 8</b>	Loads on the bridge
<b>Week 9</b>	Traffic layer and layer beams
<b>Week 10</b>	Steel Plate Tiles (Orthotropic Tiles)
<b>Week 11</b>	Main beams of bridges
<b>Week 12</b>	Mixed Constructions
<b>Week 13</b>	Bridge supports - construction technologies
<b>Week 14</b>	Assignment control - presentation of student variants
<b>Week 15</b>	Site visit to some characteristic bridges in Kosovo

<b>Academic Policy and discipline rules:</b>
Regular attendance of lectures, coming on time and keeping calm in the lesson. Open discussion on the subject, free expression of personal opinions on solutions as well as acceptance of other opinions. Use of electronic devices only if they are in the service of the subject, etc.)