

<b>Study program:</b> Urban engineering			
<b>Type and level of studies:</b> Bachelor academic studies			
<b>Course unit: Heating and Air Conditioning</b>			
<b>Teacher in charge:</b> Novak Nikolić			
<b>Language of instruction:</b> English			
<b>ECTS:</b> 6			
<b>Prerequisites:</b> None			
<b>Semester:</b> Winter Semester			
<b>Course unit objective:</b> Education objective is to introduce student with characteristics and design of installations for heating and air conditioning.			
<b>Learning outcomes of Course unit:</b> Based on obtained knowledge, students are qualified to design installations for heating and air conditioning.			
<b>Course unit contents:</b>			
<i>Theoretical classes</i>			
<u>HEATING</u> Heating needs. Heating systems and devices. Dimensioning of heating systems and devices.			
<u>AIR CONDITIONING</u> Cooling needs. Air conditioning systems and devices. Dimensioning of air conditioning systems and devices.			
<i>Practical classes</i>			
Calculation of heating and cooling needs of some residential building. Dimensioning of one heating or air conditioning system for some residential building. Use of software EnergyPlus.			
<b>Literature</b>			
2005 ASHRAE Handbook - Fundamentals, ASHRAE, Atlanta, Georgia, USA, 2005. 2008 ASHRAE Handbook - HVAC Systems and Equipment, ASHRAE, Atlanta, Georgia, USA, 2008. 2007 ASHRAE Handbook - HVAC Applications, ASHRAE, Atlanta, Georgia, USA, 2007.			
<b>Number of active teaching hours</b>			<b>Other classes</b>
Lectures: 3	Practice: 2	Other forms of classes: -	Independent work: - -
<b>Teaching methods</b> Lectures using video presentations, multimedia, laboratory.			
<b>Examination methods (maximum 100 points)</b>			
<b>Exam prerequisites</b>	<b>No. of points:</b>	<b>Final exam</b>	<b>No. of points:</b>
Student's activity during lectures	<b>5</b>	oral examination	<b>30</b>
practical classes/tests	<b>50</b>	written examination	-
Seminars/homework	-	.....	
Project	<b>15</b>		
Other	-		
<b>Grading system</b>			
<b>Grade</b>	<b>No. of points</b>	<b>Description</b>	
<b>10</b>	<b>91-100</b>	Excellent	
<b>9</b>	<b>81-90</b>	Exceptionally good	
<b>8</b>	<b>71-80</b>	Very good	
<b>7</b>	<b>61-70</b>	Good	
<b>6</b>	<b>51-60</b>	Passing	
<b>5</b>	<b>0-50</b>	Failing	