

<b>Study Programme: Biomedical engineering</b>			
<b>Course Unit Title: Equipment and systems for helping old, ill and disabled people</b>			
<b>Course Unit Code: BMI120</b>			
<b>Name of Lecturer(s): Congradac Velimir, Ivanović Vladimir</b>			
<b>Type and Level of Studies: Bachelor</b>			
<b>Course Status (compulsory/elective): compulsory</b>			
<b>Semester (winter/ summer): summer</b>			
<b>Language of instruction: english</b>			
<b>Mode of course unit delivery (face-to-face/distance learning): face-to-face</b>			
<b>Number of ECTS Allocated: 5</b>			
<b>Prerequisites: none</b>			
<b>Course Aims:</b> Training students for understanding the possibilities and importance of using modern technical solutions in order to help elderly, ill and persons with disabilities.			
<b>Learning Outcomes:</b> Acquiring of knowledge and skills, necessary for designing and implementing the systems of automation in business and residential facilities with the aim of adjusting them to persons with disabilities.			
<b>Syllabus.</b> <ul style="list-style-type: none"> <li>- The history of applying the modern automation solutions in the adjustment of business and residential facilities for persons with disabilities</li> <li>- The standards in the field of automation of business and residential facilities adapted for persons with disabilities</li> <li>- DCS architecture in the systems of automation of business and residential facilities</li> <li>- Communication protocols (LON, KNX, X10)</li> <li>- The adjustment of HVAC systems in business and residential facilities for persons with disabilities</li> <li>- The lighting and its adjustment to persons with disabilities</li> <li>- The air conditioning of business and residential facilities for persons with disabilities</li> <li>- The special aids for persons with disabilities and their connection to the automation systems of business and residential facilities</li> <li>- Designing the automation systems for business and residential facilities adapted for persons with disabilities</li> <li>- Portable telemedical devices, monitoring, tediagnosis, teleterapy, teleconsultation...</li> <li>- Systems for the aquisition of physiological parameters and signals in non-clinical environment</li> </ul>			
<b>Required Reading:</b>			
<b>Weekly Contact Hours: 2</b>	<b>Lectures: 3</b>	<b>Practical work: 0</b>	
<b>Teaching Methods:</b> Lectures. Computer practice. Laboratory practice. Consultations.			
<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Attendance			
Computer exercises			
Tests (4x)			

