

<b>Course title:</b> <i>Computer peripherals and interfaces</i>				
<b>Course code</b>	<b>Course status</b>	<b>Semester</b>	<b>Number of ECTS credits</b>	<b>Lecture hours</b>
<b>PA1103</b>	<b>Mandatory</b>	<b>I</b>	<b>6</b>	<b>3L+1E</b>

<b>Study program:</b> Graduate academic studies, ELECTRICAL ENGINEERING, study program: Electronics, Telecommunications and Computer engineering (studies last for 4 semesters, 120 ECTS credits).	
<b>Prerequisites:</b> No prerequisites required.	
<b>Course aims:</b> Interfaces and peripheral devices represent connection between computer and its environment. Student will be introduced in techniques that provide automatic collecting of the information for the purpose of processes control.	
<b>Teacher(s) first and last names :</b> <i>Prof. dr. Zoran Mijanović - teacher, dr. Neđeljko Lekić, dipl.ing. Milena Zogović i dipl.ing. Milena Jovanović – assistants</i>	
<b>Studying method:</b> Lectures, exercises, laboratory exercises, individual work on practical tasks, consultations.	
<b>Course synopsis:</b>	
Preliminary week	Preparation and semester enrolment.
I week	Introduction; Course description, goals of the course;
II week	Computer architecture; Input/Output devices; Drivers;
III week	Ports: output, input, addressing, masking;
IV week	Step motors;
V week	Optical interfaces;
VI week	<i>I colloquium;</i>
VII week	<b>Free week</b>
VIII week	Digital-analog conversion; Analog devices control;
IX week	Analog-digital conversion: following, successive, paralel;
X week	Communication interfaces: -paralel, -serial;
XI week	Sockets;
XII week	<i>II colloquium;</i>
XIII week	Modems: dial-up, speech, adsl, gprs; AT commands;
XIV week	Modems with integrated script interpreter (Python); GPS;
XV week	Intergaces in industry; Visualization of industrial processes;
XVI week	<i>Final exam</i>
Final week	Administrative procedures.
XVIII-XXI week	Additional lessons, correction of the final exam and administrative procedures.
<b>STUDENT WORKLOAD</b>	
<u>per week</u> <b>Working hours:</b> 6 credits x 40/30 = 8 hours. <b>Working hours structure:</b> 3 hours for teaching 1 hour for exercises 4 hours for individual work, including consultations.	<u>per semester</u> <b>Teaching and the final exam:</b> (8hours) x 16 = 128ours. <b>Necessary preparation</b> (before semester): 2 x (8hours) = 16hours. <b>Total work hours for the course:</b> 176hours <b>Additional hours</b> for preparing correction of the final exam, including the exam taking: up to 36hours. <b>Work hours structure:</b> 128hours (lectures) + 16hours (preparation) + 36hours (additional work)
Lessons attendance is mandatory for students, as well as doing homeworks , colloquiums, etc.	
<b>Literatura:</b>	Z.Mijanović, »Računarski interfejsi i periferije«, Univerzitet Crne Gore Basic and additional literature in electrobnic form <a href="http://www.elektronika.cg.yu">www.elektronika.cg.yu</a> Laboratory exercises <a href="http://www.elektronika.cg.yu">www.elektronika.cg.yu</a>
<b>The forms of knowledge testing and grading:</b> - 5 homeworks - 5 points in total, - Seminar work - 5 points - 2 colloquiums - 20 points each (40 points in total) - Final exam 50 points. Student gets the passing grade by collecting 51 points at least.	
<b>Special remarks for the course :</b> If needed, the course can also be taught in English.	

**Teacher(s) who provided the information:** *Prof. dr. Zoran Mijanović*

**Note:**