

NAME OF THE COURSE		Practicum of electrical engineering and electronics			
Code	PMT082	Year of study	1. year under graduate study		
Course teacher	Doc.dr.sc. Vladimir Pleština	Credits (ECTS)	2.0		
Associate teachers	Hrvoje Turić, prof. lecturer	Type of instruction (number of hours)	L	S	E
					30
Status of the course	Compulsory course	Percentage of application of e-learning			
COURSE DESCRIPTION					
Course objectives	Train the students to independently perform simple electrical measurements on basic electronic elements, circuits and their application.				
Course enrolment requirements and entry competences required for the course	none				
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	<p>After this course, students will be able to:</p> <ul style="list-style-type: none"> - Use the universal measuring instrument - Measure the electrical resistance of the resistor - Measure DC voltage and current using a universal measuring instrument - Make measurements with an oscilloscope - Set the voltage, frequency and signal values on the signal generator - Successfully test the semiconductor diode - Apply a transistor switch - Connect the integrated circuit correctly - Determine the static characteristics of a bipolar transistor 				
Course content broken down in detail by weekly class schedule (syllabus)	<ol style="list-style-type: none"> 1. Introduction of the laboratory. Getting to know the equipment. Introduction to the course and general concepts. Presentation of elements and measuring instruments that students will encounter in the exercises (2 hours) 2. Introduction to basic electronic elements and universal measuring instrument (2h) 3. Measurement of electrical resistance (2h) 4. Voltage and current measurement (2h) 5. Measuring DC power by UI method (2h) 6. UI Resistance Measurement (2h) 7. Oscilloscope and signal generator (2h) 8. Current-voltage characteristic of semiconductor diode (2h) 9. Half wave correction (2h) 10. Transistor switch (2h) 11. Integrated Circuits Connection (2h) 12. RC circuit (2h) 13. Capture of static characteristics of bipolar transistor (2h) 14. Astabil (2h) 15. Exercise Colloquia and Compensation (2h) 				
Format of instruction	<input type="checkbox"/> lectures <input type="checkbox"/> seminars and workshops <input type="checkbox"/> exercises <input type="checkbox"/> <i>on line</i> in entirety <input type="checkbox"/> partial e-learning <input type="checkbox"/> field work		<input type="checkbox"/> independent assignments <input type="checkbox"/> multimedia <input checked="" type="checkbox"/> laboratory <input type="checkbox"/> work with mentor <input type="checkbox"/> (other)		
Student responsibilities	Class attendance Independently preparation of exercise. Making reports				

	Prepared exercise before performing Active participation in the teaching process					
Screening student work (name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)	Class attendance	1	Research		Practical training	
	Experimental work		Report		(Other)	
	Essay		Seminar essay		(Other)	
	Tests	1	Oral exam		(Other)	
	Written exam		Project		(Other)	
Grading and evaluating student work in class and at the final exam	<p>Total scoring (100%):</p> <ol style="list-style-type: none"> 1. An assessment of preparation for exercise: 25% 2. Evaluation of work and commitment to the exercise: 45% 3. The evaluation of report 20% 4. Exercise colloquia: 50% <p>Rating by percentage:</p> <p>50% to 62% - sufficient (2) 63% to 75% - good (3) 76% to 88% - very good (4) 89% to 100% - excellent (5)</p>					
Required literature (available in the library and via other media)	Title				Number of copies in the library	Availability via other media
	Praktikum iz osnova elektronike – Vladimir Pleština					
	Tomislav Brodić, Diskretna analogna elektronika					
	V. Papić, Predavanja iz osnova elektronike, Sveučilišna skripta, 2005.					
Optional literature (at the time of submission of study programme proposal)	<p>B. Jajac, Teorijske osnove elektrotehnike: Struktura materije i mjerne jedinice, elektrostatika, Graphis, Zagreb, 2001</p> <p>B. Juzbašić, Elektronički elementi, Školska knjiga, Zagreb, 1984.</p> <p>P. Biljanović, Elektronički sklopovi, Školska knjiga, Zagreb, 1989.</p> <p>N. Storey, Electronics: A Systems Approach, Prentice Hall, 1998.</p> <p>P. Slapničar, Gotovac, Elektronički sklopovi, Sveučilište u Splitu, 2000.</p>					
Quality assurance methods that ensure the acquisition of exit competences	<p>Conversation with the students.</p> <p>Students opinions about the quality of teaching through anonymous polls.</p> <p>The success of students at exam.</p> <p>Self-evaluation.</p>					
Other (as the proposer wishes to add)						