

NAME OF THE COURSE		Practical exercises in basic electronics						
Code	PMT167	Year of study			1. year graduate study			
Course teacher	Doc.dr.sc. Vladimir Pleština Hrvoje Turić, prof. predavač	Credits (ECTS)			3			
Associate teachers		Type of instruction (number of hours)			L	S	E	F
							30	
Status of the course	Compulsory	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> <ol style="list-style-type: none"> 1. Analyse the principles of the diode operation and bipolar transistor 2. Apply the diode as a rectifier 3. Define the working point position of bipolar transistor 4. Analyse the operation of the bipolar transistor 5. Apply the bipolar transistor as a switch. 6. Signal analysis with oscilloscope 7. Apply a bipolar transistor as an amplifier. 8. Apply a bipolar transistor as astabil. 							
Course content broken down in detail by weekly class schedule (syllabus)	<ol style="list-style-type: none"> 1. Introduction to the course and general terms 2. Determining the resistance of an unknown resistor 3. Determination of unknown capacitor 4. Check the diode's correctness 5. Determining bipolar transistor parameters 6. U-I characteristics of the diode 7. Transistor switch 8. Voltage measurement at transistor switch 9. Semi-rectifier 10. RC Integrator 11. RC derivative circuit (derivative) 12. Recording static characteristics of a bipolar transistor 13. NF amplifier with a common emitter 14. Astabil 15. colloquium of exercises 							
Format of instruction	<input type="checkbox"/> lectures <input type="checkbox"/> seminars and workshops <input checked="" 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	Class attendance	1	Research		Practical training			
	Experimental work	0,5	Report	0,5	(Other)			
	Essay		Seminar essay		(Other)			

ECTS credits is equal to the ECTS value of the course)	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> <p>1. An assessment of preparation for exercise: 45%</p> <p>2. Evaluation of work and commitment to the exercise: 45%</p> <p>3. The evaluation of report 10%</p> <p>Rating by percentage:</p> <p>50% to 62% - sufficient (2)</p> <p>63% to 75% - good (3)</p> <p>76% to 88% - very good (4)</p> <p>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)						