NAME OF THE COURSE	Practicum in electrotechnics					
Code	PMT066	Year of study	1. year graduate study			
Course teacher	Doc.dr.sc. Vladimir Pleština	Credits (ECTS)	3			
Associate teachers		Type of instruction (number of hours)	L	S	E	F
					30	
Status of the course	Compulsory course	Percentage of application of e-learning	30%			

COURSE DESCRIPTION	
Course objectives	Train the students to independently perform simple electrical measurements on electrical machines, devices and electrical installations in no voltage and operating status in order to apply in the classroom.
Course enrolment requirements and entry competences required for the course	Attended and successfully passed: Basics of Electrical Engineering, Measurement Technology and Applied Electrical Engineering
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	After this course, students will be able to: - Perform the measurement of current, voltage and power using a measuring instrument - Examine the unknown transformer - Examine the DC machine - Use the computer as a measuring instrument - Design and dimension electrical installation in the house
Course content broken down in detail by weekly class schedule (syllabus)	Week 1 Introductory lecture and introduction to exercises. Getting to know the rules of work in the laboratory and literature. Week 2 Exercise 1 The measurement of electrical resistance in no voltage area Week 3 Exercise 2 Measurement of voltage, current and power Week 4 Exercise 3 Testing unknown transformer Week 5 Exercise 4 Measuring power of transformer at idle Week 6 Exercise 5 Measuring power of transformer in short circuit Week 7 Exercise 6 Testing DC machine - parallel motor Week 8 Exercise 7 Testing DC machine - serial motor Week 9 Exercise 8

	Testing AC asynchronous three-phase machine Week 10 Exercise 9 Using computer as measurement instrument Week 11 Exercise 10 Using educational measurement devices for primary school. Week 12 Exercise 11 Electrical installations in the house - socket, switch, and light, single pole and serial switch Week 13 Exercise 12 Electrical installations in the house - Connecting the fuse box and control installations Week 14 Exercise 13 Electrical installations - Connecting the electric meter Week 15 Analysis of exercises and evaluation of student work.
Format of instruction	☐ lectures ☐ seminars and workshops ☒ exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work ☒ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ robot demonstration (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		Research		Practical training	2
	Experimental work		Report	0,5	(Other)	
	Essay	0,5	Seminar essay		(Other)	
	Tests		Oral exam		(Other)	
	Written exam		Project		(Other)	

Grading and evaluating student work in class and at the final exam	Total scoring (100%): 1. An assessment of preparation for exercise: 45% 2. Evaluation of work and commitment to the exercise: 45% 3. The evaluation of report 10% Rating by percentage: 50% to 62% - sufficient (2) 63% to 75% - good (3) 76% to 88% - very good (4) 89% to 100% - excellent (5)

Required literature (available in the library and via other	**Title**	**Number of copies in**	**Availability via other media**

media)		**the library**	
	Vježbe - Praktikum iz elektrotehnike – Vladimir Pleština – Interna skripta i online materijali		
	Bego V.: Mjerenja u elektrotehnici, Tehnička knjiga Zagreb, 1990.		
Optional literature (at the time of submission of study programme proposal)	1. Jurković B.: Elektromotorni pogoni, ETF Zagreb, 1983. 2. Carr J.: Elements of Instrumentation and Measurement, Prentice Hall, 1986. 3. KONČAR : Tehnički priručnik, KONČAR-Zagreb, 1991. 4. Keler D., Maričević M., Srb V.: Elektromonterski priručnik, Tehnička knjiga, Zagreb, 1987.		
Quality assurance methods that ensure the acquisition of exit competences	Conversation with the students. Students opinions about the quality of teaching through anonymous polls. The success of students at exam. Self-evaluation.		
Other (as the proposer wishes to add)			