

NAME OF THE COURSE		Materials						
Code	PMT154	Year of study			2.			
Course teacher	Hrvoje Turić, prof.	Credits (ECTS)			5,0			
Associate teachers		Type of instruction (number of hours)			L	S	E	F
					30		15	
Status of the course	Compulsory	Percentage of application of e-learning						
COURSE DESCRIPTION								
Course objectives	Adopting basic knowledge of materials for the purpose of education in primary and secondary schools							
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)	1. Define the types of chemical bonds and crystal systems 2. Explain the process of crystallization and characteristics of individual crystal structures 3. Analyze the basic phase diagrams 4. Define conditions occurrence of certain structural phase Fe-C alloy 5. Characterize polymer, composite and ceramic materials 6. Define the basic procedures of heat treatment of metal materials 7. List the basic properties and areas of application of certain technical materials 8. Explain methods of testing materials 9. Create awareness about the importance of recycling materials, their care, and environmental protection							
Course content broken down in detail by weekly class schedule (syllabus)	1. Introduction to the course and basic concepts 2. The structure of matter - the amorphous and crystalline structures 3. Crystallization of metals 4. Phase Diagrams 5. Phase diagram Fe-C 6. Iron, steel 7. Non-ferrous metals and alloys 8. Colloquium 9. Non-ferrous metals 10. Polymers 11. Ceramic materials 12. Composite materials, wood and stone 13. Heat treatment of materials 14. Material recycling, disposal of materials 15. Colloquium							
Format of instruction	<input checked="" 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 checked="" type="checkbox"/> independent assignments <input checked="" type="checkbox"/> multimedia <input type="checkbox"/> laboratory <input type="checkbox"/> work with mentor <input type="checkbox"/> (other)				
Student responsibilities	Class attendance, homework (programs), independent study and literature reading, accessing colloquium and/or written and oral examination.							
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	2,5	Research		Practical training			
	Experimental work		Report		Colloquium	0,5		
	Essay		Seminar essay		(Other)			
	Tests		Oral exam	1	(Other)			
	Written exam	1	Project		(Other)			
Grading and evaluating student work in class and at the final exam	Class attendance is registered, but not included in the evaluation. Exam and partial exam consists of a theoretical part and assignments. - Theoretical exam (50%) - Assignments (50%) Passing threshold is 50%.							
Required literature (available in the library and via other media)	Title				Number of copies in the library	Availability via other media		
	G. Fučko, Materijali – predavanja (interna skripta)							
	Deželić R, osnove konstrukcijskih materijala, Fesb, Split							

Optional literature (at the time of submission of study programme proposal)	Anzulović B., Materijali, FESB, Split		
Quality assurance methods that ensure the acquisition of exit competences	Conducting an anonymous student surveys, talk with students, analyses the success of students on tests and exams, self-assessment.		
Other (as the proposer wishes to add)			