

### DESCRIPTION OF A STUDY COURSE – SYLLABUS

Title of a course	Project in Telematics				
Head of course	Associate Professor, PhD Alen Jakupović Damir Malnar, Lecturer				
Study programme	Professional undergraduate study Telematics				
Status of a course	Obligatory				
Year of study	3.	Semester	V	ECTS credits	4
Teaching plan (L + E + S+ Pr)	1+3+0+0				
Goals of a course					
Acquire competencies for project definition, drafting of project documentation, development of software, hardware or software-hardware system, and development of commercial presentation.					
Conditions for enrolling course					
Courses: Programming II, Databases, Mobile Communication, Project Management, Software Engineering, Operating System Concepts, TC Networks and Services, and Systems and Telematics Design					
Learning outcomes on a level of a study programme which includes course					
Outcome 4: Use computer principles and methods related to the architecture and organization of computers and computer networks.					
Outcome 5: Use computer principles and methods related to programming languages, databases, and operating systems.					
Outcome 6: Design and implement desktop, web and mobile computer applications and computer programs for microcomputers and microcontrollers, with or without a database.					
Outcome 7: Describe the development and implementation of communications systems, switching systems, and local and broadband networks.					
Outcome 8: Design and implement communications and computer networks, as well as network services.					
Outcome 9: Explain the basic methods of automatic system control and apply them to telematics systems.					
Outcome 10: Analyse and implement an information system in the field of telematics.					
Outcome 11: Design and develop solutions for components, circuits and software for application in signal processing and telecommunications, with the preparation of supporting project documentation.					
Outcome 12: Design and develop solutions for components, circuits and software for application in computer networks and information systems, with the preparation of supporting project documentation.					
Outcome 13: Design and develop solutions for components, circuits and software for application in regulation systems and production processes, with the preparation of supporting project documentation.					
Outcome 14: Apply methods of organizing business systems and marketing of products and services in the context of entrepreneurship in telematics.					
Outcome 15: Participate in teamwork and independently present professional content in written and spoken form in Croatian and English.					
Expected learning outcomes on a level of a course					
1. Develop a project work plan that includes project activities, an estimate of the completion time, start and end dates, and the expected outcome of project activities					
2. Create appropriate models for each stage of system development (analysis, design and implementation)					
3. Create a software, hardware or hardware-software system from the field of telematics					
4. Compile project documentation					
5. Create a commercial presentation of project results					
Content of a course					
Problems in telematics structured in a task. Developing a project (HW, SW or an ideal solution). Individual and team work. Developing weekly reports and respecting the set deadlines. Adjusting solutions to demands Developing a detailed project documentation. Developing a project presentation.					
Teaching modes	<input checked="" type="checkbox"/> lectures <input type="checkbox"/> auditory exercises		<input checked="" type="checkbox"/> individual assignments <input type="checkbox"/> multimedia and network		

	<input checked="" type="checkbox"/> seminars and workshops <input type="checkbox"/> distance learning <input type="checkbox"/> field classes	<input type="checkbox"/> laboratory <input type="checkbox"/> supervisor's work <input type="checkbox"/> other _____			
<b>Comments</b>					
<b>Students' obligations</b>					
<b>Grading, evaluation and monitoring of students' work continuously during lectures and exams</b>					
Grading is based upon evaluation of course's learning outcomes' adoption. Grading is performed continuously during lectures and/or during exam, in compliance with the provisions of Regulation on the assessment of students.					
<b>Continuous check-up:</b>					
<b>Outcomes</b>	<b>Project documentation</b>	<b>Project defense</b>	<b>Commercial presentation</b>	<b>Threshold</b>	<b>Max</b>
<b>Outcome 1</b>	10 %			5 %	10 %
<b>Outcome 2</b>	10 %	20 %		15 %	30 %
<b>Outcome 3</b>		40 %		20 %	40 %
<b>Outcome 4</b>	10 %			5 %	10 %
<b>Outcome 5</b>			10 %	5 %	10 %
<b>Percentage of ECTS</b>	<b>1,2</b>	<b>2,4</b>	<b>0,4</b>	<b>-</b>	<b>-</b>
<b>Total</b>	<b>30 %</b>	<b>60 %</b>	<b>10 %</b>	<b>50 %</b>	<b>100 %</b>
A student has passed the exam if he has acquired a percentage of credits for each learning outcome higher or equal to defined threshold.					
<b>Exam term:</b>					
<b>Outcomes</b>	<b>Written exam</b>	<b>Oral exam</b>	<b>Max</b>		
<b>Outcome 1</b>	10 %		10 %		
<b>Outcome 2</b>	10 %	20 %	30 %		
<b>Outcome 3</b>		25 %	40 %		
<b>Outcome 4</b>	10 %	10 %	10 %		
<b>Outcome 5</b>		5 %	10 %		
<b>Percentage of ECTS</b>	<b>1,2</b>	<b>2,8</b>	<b>-</b>		
<b>Total</b>	<b>30 %</b>	<b>70 %</b>	<b>100 %</b>		
A student has passed the exam if he has acquired a percentage of credits for each learning outcome higher or equal to defined threshold.					
<b>Grading:</b>					
A student has passed the exam if he has acquired at least 50% of anticipated credits of a specific learning outcome.					
If a student has passed learning outcomes of all courses, the accomplished credits (percentages) of all passed learning outcomes are being added, while the final grade is defined upon following table:					
<b>Range of credits (percentages)</b>	<b>Numerical grade</b>	<b>ECTS grade</b>			
90,00 – 100,00	Excellent (5)	A			
75,00 – 89,99	Very good (4)	B			
60,00 – 74,99	Good (3)	C			
50,00 – 59,99	Sufficient (2)	D			
0,00 – 49,99	Insufficient (1)	F			
<b>Obligatory literature</b>					

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| 1. Authorized Lectures<br>2. Documentation available on the Internet |
| <b>Additional literature</b>   |
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