

1.1. Course description

NAME OF THE COURSE						
Code	PMIC61	Year of study				
Course teacher		Credits (ECTS)	5,0			
Associate teachers		Type of instruction (number of hours)	L	S	E	F
			30		30	
Status of the course		Percentage of application of e-learning				
COURSE DESCRIPTION						
Course objectives	Introducing the tools and techniques for developing and maintaining web applications with an emphasis on all aspects of development - client and server side. The aim of the course is to get acquainted with all stages of web application development and setting up applications in a production environment using modern tools for development, management and monitoring.					
Course enrolment requirements and entry competences required for the course	Web development Databases					
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Setting up a working environment for web application development. Manage the development part of the application life-cycle. Know the basics of client-side (front-end) development. Know the basics of server-side (back-end) development. Design and implement databases for your own applications Use production systems and install the software solution on the production server.					
Course content broken down in detail by weekly class schedule (syllabus)	Web application development, tools and IDE Application source control and version management (git) Launching an application in a production environment (Heroku, Azure) UI / UX - user interface and user experience Responsive application design, element layout (Flexbox) CSS preprocessors Front-end frameworks (Bootstrap, Materialize, PureCSS) Back-end frameworks (React, Vue) Server side programming (node.js) Midterm Web requests and routing API services - creating own API Non-relational and relational databases in web application development User authentication - custom and pre-built solutions Application monitoring, management, and upgrade					
Format of instruction	<input checked="" type="checkbox"/> lectures <input type="checkbox"/> seminars and workshops <input checked="" type="checkbox"/> exercises <input type="checkbox"/> on line in entirety <input type="checkbox"/> partial e-learning <input type="checkbox"/> field work		<input checked="" type="checkbox"/> independent assignments <input type="checkbox"/> multimedia <input type="checkbox"/> laboratory <input type="checkbox"/> work with mentor <input type="checkbox"/> homework assignments			
Student responsibilities	Lecture and laboratory attendance, active participation in course activities, homework and project realization, final exam.					

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)	Name	Ects	Name	Ects	Name	Ects
	Class attendance	2	Research		Experimental work	
	Oral exam	0,5	Report		Homework assignments	
	Seminar essay		Essay			
	Tests	1	Practical training	2		
	Written exam	0,5	Project			
Grading and evaluating student work in class and at the final exam	Attendance/Participation (10%) Project (30%) Final/Oral Exam (60%)					
Required literature (available in the library and via other media)	Title			Number of copies in the library	Availability via other media	
	Ben Frain, Responsive Web Design with HTML5 and CSS3, Packt Publishing; second edition (2017)			0		
	Chris Aquino, Todd Gandee; Front-End Web Development: The Big Nerd Ranch Guide; Big Nerd Ranch Guides; first edition (2016)			0		
	Vasan Subramanian; Pro MERN Stack: Full Stack Web App Development with Mongo, Express, React, and Node; Apress; first edition(2017)			0		
Optional literature (at the time of submission of study programme proposal)	Related Research Papers					
Quality assurance methods that ensure the acquisition of exit competences	Student discussion, anonymous student evaluation questionnaire, student success rate, self-assessment					
Other (as the proposer wishes to add)						