

Subject card

Subject name and code	Programming in Golang (lecture), PG_00168379						
Field of study	Informatics						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2025/2026		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Optional subject group		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish Polish (english for Erasmus students)		
Semester of study	4		ECTS credits		5.0		
Learning profile	practical		Assessment form		exam		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Jan Tuziemski				
	Teachers		dr inż. Jan Tuziemski				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	30.0	0.0	0.0	60
	E-learning hours included: 0.0						
	Additional information:						
	Course materials are available on a dedicated MSTEams channel						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	60		0.0		0.0	60
Subject objectives	The aim of the course is to familiarize students with the Golang programming language.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[INFL3_W04] has ordered, theoretically founded knowledge in programming, algorithms and complexity, programming languages and paradigms		Familiarization with the Golang language broadens theoretical knowledge in programming, algorithms and complexity, as well as programming languages and paradigms.		[SW4] test/exam - oral or written [SW5] implementation of a problem task		
	[INFL3_U08] assesses the usefulness of various paradigms and related programming tools to solve various types of problems		Completing the course enables students to learn about the main applications of the Golang language and to compare its features with those of other programming languages, such as Python and Java.		[SU4] test/exam - oral or written [SU5] implementation of a problem task		
	[INFL3_W03] has ordered knowledge in software engineering and project management methodologies, IT project life cycle, software specification, validation and verification, design patterns		The course helps consolidate good programming practices and develops competencies related to software validation and verification in Golang.		[SW4] test/exam - oral or written [SW5] implementation of a problem task		

Subject contents	1. Literals, constants, variables. 2. Operations, operators, expressions. 3. Data types. 4. Flow control. 5. Functions and procedures. 6. Defer. 7. Interfaces. 8. Error handling. 9. Multithreading. 10. Selected packages from the Go standard library.											
Prerequisites and co-requisites	A. Formal requirements There are no formal prerequisite course requirements for this course. B. Prerequisites Computer literacy, file transfer, and the ability to search for information on the Internet. Understanding of basic programming constructs such as conditional statements, loops, functions, and recursion. Intermediate knowledge of the C language, including basic data types, arrays, structures, and pointers. Knowledge of the basic principles of proper structured programming and good programming practices.											
Assessment methods and criteria	<table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>test/exam – oral or written</td><td>51.0%</td><td>50.0%</td></tr><tr><td>completion of a problem-based task</td><td>51.0%</td><td>50.0%</td></tr></table>			Subject passing criteria	Passing threshold	Percentage of the final grade	test/exam – oral or written	51.0%	50.0%	completion of a problem-based task	51.0%	50.0%
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Recommended reading	Basic literature	Go Programming Language, The (Addison-Wesley Professional Computing Series) , ISBN-13: 978-0134190440 Head First Go, ISBN-13: 978-1491969557 Hands-On Software Engineering with Golang: Move beyond basic programming to design and build reliable software with clean code, ISBN13: 978-1838554491 Learning Go: An Idiomatic Approach to Real-world Go Programming, 2nd EditionI Jon Bodner, ISBN Książki drukowane:978-83-289-1476-6, 9788328914766, ISBN Ebooka:978-83-289-1477-3, 9788328914773										
	Supplementary literature	Go Programming - From Beginner to Professional. Learn everything you need to build modern software using Go - Second Edition Samantha Coyle ISBN Ebooka:978-18-032-4630-7, 9781803246307										
	eResources addresses											

Example issues/ example questions/ tasks being completed	
Work placement	Not applicable

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