

STRUCTURE OF THE STUDY PROGRAM

Table 1. Schedule of courses by semesters and years of study

No.	Course Code	Course Title	Semester	Weekly fund of lessons		EKTC
				L	E	
FIRST YEAR						
1	21IIT11A010	Calculus 1	1	2	3	6
2	21IIT11A020	Fundamentals of Programming	1	2	3	6
3	21IIT11A030	Digital Technology	1	2	3	6
4	21IIT11A040	Internet Technologies	1	2	3	6
5	21IIT11B0X0	Elective Course	1	2	3	6
6	21IIT12A011	Calculus 2	2	2	3	6
7	21IIT12A021	Object Oriented Programming	2	2	3	6
8	21IIT12A031	Digital Logic	2	2	3	6
9	21IIT12A041	Algorithms and Data Structures	2	2	3	6
10	21IIT12B0X X	Elective Course	2	2	3	6
Total hours (lectures/exercises) and ECTS for year				20	30	60

No.	Course Code	Course Title	Semester	Weekly fund of lessons		EKTC
				L	E	
SECOND YEAR						
1	21IIT13A012	Computer Architecture and Organization	3	2	3	6
2	21IIT13A022	Visual Programming	3	2	3	6
3	21IIT13A032	Fundamentals of Probability and Statistics	3	2	3	6
4	21IIT13A042	Internet Programming	3	2	3	6
5	21IIT13B0X2	Elective Course	3	2	3	6
6	21IIT14A012	Discrete Mathematics and Its Applications	4	2	3	6
7	21IIT14A023	Software Engineering	4	2	3	6
8	21IIT14A032	Databases	4	2	3	6
9	21IIT14A040	Macedonian Language and Academic Writing	4	2	3	6
10	21IIT14B0X X	Elective Course	4	2	3	6
Total hours (lectures/exercises) and ECTS for year				20	30	60

No	Course Code	Course Title	Semester	Weekly fund of lessons		EKTC
				L	E	
THIRD YEAR						
1	21IIT13A012	Advanced Algorithms	3	2	3	6
2	21IIT13A022	Introduction to Cryptography	3	2	3	6
3	21IIT13A032	Graphics and Visualization	3	2	3	6
4	21IIT13A042	Operating Systems	3	2	3	6
5	21IIT13B0X2	Elective Course	3	2	3	6
6	21IIT14A012	Data Mining	4	2	3	6
7	21IIT14A023	Software Project Management	4	2	3	6
8	21IIT14A032	Information Systems	4	2	3	6
9	21IIT14A040	Microcomputer Systems	4	2	3	6
10	21IIT14B0XX	Elective Course	4	2	3	6
Total hours (lectures/exercises) and ECTS for year				20	30	60

No	Course Code	Course Title	Semester	Weekly fund of lessons		EKTC
				L	E	
FOURTH YEAR						
1	21IIT17A012	Modeling and Simulations	7	2	3	6
2	21IIT17A024	Software Design and Architecture	7	2	3	6
3	21IIT17A033	Operations Research	7	2	3	6
4	21IIT17A043	Compiler Design	7	2	3	6
5	21IIT17B0XX	Elective Course	7	2	3	6
6	21IIT18A014	Computer Security	8	2	3	6
7	21IIT18A023	Artificial Intelligence	8	2	3	6
8	21IIT18A033	Distributed Systems and Cloud Computing	8	2	3	6
9	21IIT18A040	Graduation Thesis	8	2	3	6
10	21IIT18B0XX	Elective Course	8	2	3	6
Total hours (lectures/exercises) and ECTS for year						60

Table 2. Elective courses of the study program

Type of elective course	No
Elective courses from the List of Elective Courses proposed by the unit	16
Elective courses provided by the unit from the University's list of elective courses	0

No.	Course Code	Course Title	Semester	Weekly fund of lessons		ECTS	unit
				L	E		
1	21IIT11B050	English Language 1	1	2	3	6	FIS
2	21IIT11B060	Basics of Web Design	1	2	3	6	FIS
3	21IIT12B051	English Language 2	2	2	3	6	FIS
4	21IIT12B060	Computer Electronic Elements	2	2	3	6	FIS
5	21IIT13B052	Game Programming	3	2	3	6	FIS
6	21IIT13B062	Scripting Languages Programming 1	3	2	3	6	FIS
7	21IIT14B051	Computer Networks	4	2	3	6	FIS
8	21IIT14B060	Multimedia Tools	4	2	3	6	FIS
9	21IIT15B052	Mobile Application Programming	5	2	3	6	FIS
10	21IIT15B062	Java Programming	5	2	3	6	FIS
11	21IIT16B053	Scripting Languages Programming 2	6	2	3	6	FIS
12	21IIT16B060	Electronic and Mobile Commerce	6	2	3	6	FIS
13	21IIT17B052	Network Protocols	7	2	3	6	FIS
14	21IIT17B063	Graph Theory and Applications	7	2	3	6	FIS
15	21IIT18B050	Ethics	8	2	3	6	FIS
16	21IIT18B063	Advanced Databases	8	2	3	6	FIS
In total:						96	