

American University of Europe – FON Faculty of Informatics

STUDY PROGRAM: Computer Science

FIRST CYCLE OF ACADEMIC STUDIES – UNDERGRADUATE STUDIES (240 ECTS)

Study program structure

No.	Course code	Course	Semester	Number of classes per week		ECTS
				L	E	
<b>FIRST YEAR</b>						
1	INZ1101F	Calculus 1	1	2	4	6
2	INZ1102F	Introduction to programming	1	2	2	6
3	INZ1103F	Digital design	1	2	2	6
4	INZ1104F	Information technologies	1	2	2	6
5		Elective subject	1	0-2	2-4	6
6	INZ1205F	Internet technologies	2	2	2	6
7	INZ1216F	Calculus 2	2	2	4	6
8	INZ1217F	Object Programming	2	2	2	6
9	INZ1218F	Data Structures and Algorithms	2	2	2	6
10		Elective subject	2	0-2	2-4	6
<b>Total classes (lectures/exercises) and ECTS per year</b>				16-20	24-28	60

No.	Course code	Course	Semester	Number of classes per week		ECTS
				L	E	
<b>SECOND YEAR</b>						
1	INZ2309F	WEB development	3	2	2	6
2	INZ23110F	Computer Networks	3	3	3	6
3	INZ23111F	Architecture of Computer Systems	3	2	2	6
4	INZ23012F	Algebraic structures	3	2	4	6
5		Elective subject	3	2	2	6
6	INZ24214F	Visual programming	4	2	2	6
7	INZ24115F	Discrete structures	4	2	4	6
8	INZ24116F	Operating systems	4	2	2	6
9	INZ24217F	Databases	4	2	4	6
10		Elective subject	4	2	2	6
<b>Total classes (lectures/exercises) and ECTS per year</b>				21	27	60

No.	Course code	Course	Semester	Number of classes per week		ECTS
				L	E	
<b>THIRD YEAR</b>						
1	INZ35120F	Basics of software engineering	5	2	2	6
2	INZ35321F	Computer graphics	5	2	2	6
3	INZ35222F	Computer Systems Security	5	2	2	6
4	INZ35024F	Formal languages and language processors	5	2	2	6
5		Elective subject	5	2	2	6
6	INZ36326F	Distributed Computer Systems	6	2	2	6
7	INZ36127F	Intelligent systems	6	2	2	6
8	INZ36129F	Advanced databases	6	2	2	6
9	INZ35223F	Network operating systems	6	2	2	6
10		Elective subject	6	2	2	6
<b>Total classes (lectures/exercises) and ECTS per year</b>				20	20	60

No.	Course code	Course	Semester	Number of classes per week		ECTS
				L	E	
<b>FOURTH YEAR</b>						
1	INZ47131F	Software design and testing	7	2	2	6
2	INZ47132F	Operational research	7	2	2	6
3	INZ47133F	Parallel processing	7	2	2	6
4	INZ47034F	Business processes	7	2	2	6
5		Elective subject	7	2	2	6
6	INZ48237F	Quality of software and measurements	8	2	2	6
7	EKZI36033F	Project management	8	2	2	6
8	INZ48039F	Design of complex software solutions	8	2	2	6
9	INZ4854F	Diploma thesis	8	0	4	6
10		Elective subject	8	2	2	6
<b>Total classes (lectures/exercises) and ECTS per year</b>				18	22	60

### Study program list of elective courses

No.	Course code	Course	Semester	Number of classes per week		ECTS	Faculty
				L	E		
1	INI11052F	English for Information Technology 1	1	0	4	6	FI
2	KRI1205F	Macedonian language for foreigners 1	1	0	4	6	FDS
3	POZ1102F	Sociology	1	2	2	6	FLPS

4	ESMI1103F	Sport and Health 1	1	1	3	6	FE
5	INI12153F	English for Information Technology 2	2	0	4	6	FI
6	KRI2214F	Macedonian language for foreigners 2	2	0	4	6	FDS
7	ESMI1203F	Sport and Health 2	2	1	3	6	FE
8	POZ2204U	Academic writing	2	2	2	6	FLPS
9	POZ4202F	Rhetoric and argumentation	2	2	2	6	FLPS
10	INI23013F	Multimedia	3	2	2	6	FI
11	EKZI23010F	E-business	3	2	2	6	FI
12	INI24118F	Computer components and peripherals	4	2	2	6	FI
13	INI24019F	Cybersecurity Fundamentals	4	2	2	6	FI
14	INI24059F	Intercultural Communication in ICT	4	2	2	6	FI
15	INI35055F	E-society	5	2	2	6	FI
16	INI35125F	Numerical methods	5	2	2	6	FI
17	INI36228F	Signals and Systems	6	2	2	6	FI
18	INI36230F	Advanced WEB development	6	2	2	6	FI
19	INI47235F	Wireless and Mobile Networks	7	2	2	6	FI
20	INI47336F	Database administration	7	2	2	6	FI
21	INI48138F	Digital Telecommunications	8	2	2	6	FI
22	INI48140F	Selected chapters from mathematical analysis	8	2	2	6	FI
<b>Total classes (lectures/exercises) and ECTS per year</b>							