YEAR 1

Year	Subject	CAT	ECTS	HOURS
1st Year	**1st Semester**			
	Physical and Technological Foundations of Informatics	Basic	6	5
	Logic	Basic	6	4
	Discrete Mathematics I	Basic	6	5
	Linear algebra	Basic	6	5
	Programming I	Eng.	6	5
	2nd Semester			
	Calculus	Basic	6	5
	Probability and Statistics I	Basic	6	4
	Digital Systems	Basic	6	5
	Programming II	Eng.	6	4
	Human-Computer Interaction	Eng.	6	4

YEAR 2

Year	Subject	CAT	ECTS	HOURS
2nd Year	**3rd Semester**			
	Numerical Algorithms	Basic	6	5
	Discrete Mathematics II	Basic	3	3
	Formal Languages, Automata and Computability	Eng.	6	3
	Systems Programming	Eng.	3	2
	Algorithms and Data Structure	Eng.	6	4
	Computer Structure	Eng.	6	5
	4th Semester			
	Probability and Statistics II	Basic	3	2
	Fundamentals of Economics and Business Administration	Gen.	3	2
	Fundamentals of Information Technology Management in Business	Gen.	3	2
	Concurrency	Eng	3	2
	Databases	Eng	6	4
	Computer Architecture	Eng	6	5
	Computer Networks	Eng	6	5

YEAR 3

Year	Subject	CAT	ECTS	HOURS
3rd Year	**5th Semester**			
	Subject		**ECTS**	**HOURS**
	Language Processors	Eng	3	3
	Artificial Intelligence	Eng	6	4
	Operating Systems	Eng	6	5
	Information Technologies Security	Eng	6	4
	Engineering subjects (elective)	Eng	9	6-9
	6th Semester			
	Declarative Programming: Logic and Constraints	Eng	3	2
	Software Engineering I	Eng	6	4
	Data Center Design Project	Eng	3	2
	Distributed Systems	Eng	6	4
	Service-Oriented Computing	Eng	6	4
	Engineering subjects (elective)	Eng	6	4-6

YEAR 4

Year	Subject	CAT	ECTS	HOURS
	7th-8th Semester			
	Subject		**ECTS**	**HOURS**
4th Year	Information Technologies Process Management	Eng.	6	3
	English for Professional and Academic Communication	Gen.	6	4
	Software Engineering II	Eng	6	3
	Engineering subjects (elective) / Practicum	Eng	30	20-25
	Final-Term Project		12	

ELECTIVE (YEAR 3)

Year	Subject	CAT	ECTS	HOURS
	5th Semester			
	Subject		**ECTS**	**HOURS**
	Industrial Informatics	Eng (elect)	6	4
	Operational Research	Eng (elect)	6	4
	Optoelectronic Systems	Eng (elect)	3	2
	Numerical Applications of Informatics	Eng (elect)	3	2
3rd Year	Middleware	Eng (elect)	3	2
	Building up Communications Skills	Eng (elect)	3	2
	Differential Equations: Methods and Models	Eng (elect)	6	4
	6th Semester			
	Numerical Algorithms II	Eng (elect)	3	2
	Digital Signal Processing	Eng (elect)	6	4
	Intelligent Systems	Eng (elect)	6	4
	Professional and Academic Spanish	Eng (elect)	3	2
	Personal Computers	Eng (elect)	3	2
	Language Translators	Eng (elect)	3	2

ELECTIVE (YEAR 4)

Year	Subject	CAT	ECTS	HOURS
	7th Semester			
	Subject		**ECTS**	**HOURS**
	IT System Administration	Eng (elect)	3	2
	Web of Linked Data and Semantic Web	Eng (elect)	3	2
	Planning Systems	Eng (elect)	3	2
	Pattern Recognition	Eng (elect)	3	2
	Scientific Computing Techniques	Eng (elect)	3	2
	Nanotechnology	Eng (elect)	3	2
	Wireless Communication Technologies	Eng (elect)	3	2
	Cisco Network Technologies: CCNA	Eng (elect)	6	4
	8th Semester			
4th Year	3D Geometry for Computer Graphics	Eng (elect)	3	2
	High Performance Architectures and Computing	Eng (elect)	3	2
	Robotic and Computer Perception	Eng (elect)	3	2
	Dynamical Systems, Chaos and Fractals	Eng (elect)	6	4
	Computability Theory	Eng (elect)	3	2
	Web Application Design	Eng (elect)	3	2
	Applications of Voice Biometrics	Eng (elect)	3	2
	Computational Photography	Eng (elect)	3	2
	Technology Integration Engineering	Eng (elect)	3	2
	Data Warehouse Architecture	Eng (elect)	3	2
	Geometric Algorithms	Eng (elect)	3	2
	Data Mining	Eng (elect)	3	2
	Practicum	Eng (elect)	12	–