

UNIVERSITY "ECONOMICS ACADEMY" BRCKO DISTRICT OF BOSNIA AND HERZEGOVINA
FACULTY OF TECHNICAL SCIENCES
FIRST CYCLE - UNDERGRADUATE ACADEMIC STUDIES
Bachelor with Honours in Electrical Engineering and Computer Science – 240 ECTS

CURRICULUM

No.	Code	Course Title	Sem.	Type	Status	Hours of Active Teaching			ECTS
						L	P	C	
FIRST YEAR									
1.	EL01	Informatics	1		M	2	3		7
2.	EL02	Introduction to Programming	1		M	2	3		7
3.	EL03	English Language 1	1		M	2	1		5
4.	EL04	Mathematics 1	1		M	2	2		6
5.	EL05	<i>Elective 1</i>	1		E	2	1		5
		Introduction to Electrical Engineering							
		Introduction to Electronics							
		Control Algorithms							
		Computer Architecture and Organization							
Total:						10	10		30
6.	EL06	Mathematics 2	2		M	2	3		7
7.	EL07	English 2	2		M	2	3		7
8.	EL08	Physics 1	2		M	2	1		5
9.	EL09	Algorithms and Data Structures	2		M	2	2		6
10.	EL10	<i>Elective 2</i>	2		E	2	1		5
		Electrical Engineering 1							
		Electronics 1							
		Process Automation							
		Data Transfer							
Total:						10	10		30
Total Hours in the First Year of Undergraduate Academic Studies						300	300		60
SECOND YEAR									
1.	EL11	Strength of Materials	3		M	2	3		7
2.	EL12	Technical Mechanics	3		M	2	3		7
3.	EL13	Physics 2	3		M	2	1		5
4.	EL14	Application of Computers in Electrical Engineering and Electronics	3		M	2	2		6
5.	EL20	<i>Elective 3</i>	3		E	2	1		5
		Electrical Engineering 2							
		Electronics 2							
		Software Design							
		Program Translators							
Total:						10	10		30
6.	EL21	Mathematics 3	4		M	2	3		7
7.	EL22	Object-Oriented Programming	4		M	2	3		7
8.	EL23	Operating Systems	4		M	2	1		5
9.	EL24	Fluid Mechanics	4		M	2	2		6
10.	EL25	<i>Elective 4</i>	4		E	2	1		5
		Computer Graphics and Animation							
		Operational Research							
		DSP in Management							

		Microprocessor Systems							
Total:						10	10		30
Total Hours in the Second Year of Undergraduate Academic Studies						300	300		60
THIRD YEAR									
1.	EL26	Numerical Modeling in Engineering	5		M	2	3		7
2.	EL27	Operations Research and Linear Programming	5		M	2	3		7
3.	EL28	Digital Signal Processing (DSP)	5		M	2	1		5
4.	EL29	Computer Architecture	5		M	2	2		6
5.	EL30	<i>Elective 5</i>	5		E	2	1		5
		Fundamentals of Environmental Engineering							
		Digital Methods and Technologies.							
		Digital Automatic Control Systems							
		Information Systems Design							
Total:						10	10		30
6.	EL31	Database	6		M	2	3		7
7.	EL32	Probability Theory and Statistics	6		M	2	3		7
8.	EL33	Fundamentals of Information Systems	6		M	2	1		5
9.	EL34	Information Theory and Coding	6		M	2	2		6
10.	EL35	<i>Elective 6</i>	6		E	2	1		5
		Optimization Methods in Electrical Engineering							
		Object-Oriented database							
		Automation and Robotics							
		Parallel computer systems							
Total:						10	10		30
Total Hours in the Third Year of Undergraduate Academic Studies						300	300		60
FOURTH YEAR									
1.	EL36	Intelligent Systems	7		M	2	3		7
2.	EL37	Fundamentals of Telecommunications	7		M	2	3		7
3.	EL38	Automatic Control	7		M	2	1		5
4.	EL39	Computer Networks	7		M	2	2		6
5.	EL40	<i>Elective 7</i>	7		E	2	1		5
		Robotics and Automation							
		Microprocessor systems Design							
		Intelligent Management							
		Database Software Tools							
Total:						10	10		30
6.	EL41	Professional Practice	8		M		20		20
7.	EL42	Final Paper	8		M	0			10
Total:						0			
Total						150	450		60

After passing all the subjects provided for in the curriculum for eight semesters, a student receives a certificate of completion of the study program with 240 ECTS points, namely Bachelor with Honours in Electronics Engineering and Computer Science – 240 ECTS.