

BACHELOR ENGINEERING PROGRAM IN COMMUNICATIONS ELECTRONIC ENGINEERING (CODE 59EC)

ACADEMIC YEAR 2021-2022

FIRST YEAR

CODE	COURSES	ECTS	TYPE	SEMESTER	DEPARTMENT CODE
595000002	LINEAR ALGEBRA	6	Elem	1 st	D540
595000004	CIRCUITS ANALYSIS I	6	Elem	1 st	D250
595000003	CALCULUS I	6	Elem	1 st	D540
595000006	INTRODUCTION TO TELECOMMUNICATIONS	3	Comp	1 st	D250
595000005	PROGRAMMING I	6	Elem	1 st	D230
595000001	INTRODUCTORY WORKSHOP ON ENGINEERING	3	Comp	1 st	D250
595000008	CIRCUITS ANALYSIS II	6	Elem	1 st and 2 nd	D250
595000010	CALCULUS II	6	Elem	2 nd	D540
595000007	PROFESSIONAL COMMUNICATION SKILLS	3	Comp	2 nd	D240
595000009	ELECTRONICS I	6	Elem	1 st and 2 nd	D230
595000011	PROGRAMMING II	6	Elem	1 st and 2 nd	D230
595000012	SEARCH TECHNIQUES AND INFORMATION SYSTEMS	3	Comp	2 nd	D230

SECOND YEAR

CODE	COURSES	ECTS	TYPE	SEMESTER	DEPARTMENT CODE
595000013	ELECTROMAGNETISM AND WAVES	6	Elem	1 st and 2 nd	D510
595000015	ELECTRONICS II	6	Comp	1 st and 2 nd	D230
595000014	STATISTICS AND STOCHASTIC PROCESSES	6	Elem	1 st and 2 nd	D540
595000016	TELECOMMUNICATIONS NETWORKS AND SERVICES	6	Comp	1 st and 2 nd	D230
595000017	SIGNALS AND SYSTEMS	6	Comp	1 st and 2 nd	D250
595000018	SCIENCE, TECHNOLOGY AND SOCIETY	3	Comp	1 st and 2 nd	D230
595000023	ANALOG ELECTRONICS I	6	Comp	2 nd	D230
595000021	MICROPROCESSORS	6	Comp	1 st and 2 nd	D230
595000025	DIGITAL SIGNAL PROCESSING	4.5	Comp	1 st and 2 nd	D250
595000019	WAVE PROPAGATION	4.5	Comp	1 st and 2 nd	D510
595000022	COMMUNICATION THEORY	6	Comp	1 st and 2 nd	D250

THIRD YEAR

CODE	COURSES	ECTS	TYPE	SEMESTER	DEPARTMENT CODE
595000027	DIGITAL DESIGN I	4.5	Comp	1 st	D230
595000024	ECONOMICS AND BUSINESS MANAGEMENT	4.5	Comp	1 st	D400
595000030	AUDIOVISUAL SYSTEMS	4.5	Comp	1 st	D250
595000028	MICROPROCESSOR-BASED SYSTEMS	6	Comp	1 st	D230
595000029	CONTROL SYSTEMS	6	Comp	1 st	D230
595000026	OPERATING SYSTEMS	4.5	Comp	1 st	D230
595000031	DIGITAL DESIGN II	6	Comp	2 nd	D230
595000032	ANALOG ELECTRONICS II	6	Comp	2 nd	D230
595000020	COMPUTER NETWORKS	4.5	Comp	2 nd	D230
595000033	PRODUCTION TECHNOLOGIES OF ELECTRONICS SYSTEMS	4.5	Comp	2 nd	0910
	ELECTIVE SUBJECTS/INTERNSHIP CREDITS	9	Elec	2 nd	

FORTH YEAR

CODE	COURSES	ECTS	TYPE	SEMESTER	DEPARTMENT CODE
595000034	ENGLISH FOR PROFESSIONAL AND ACADEMIC COMMUNICATION (*)	6	Comp	1 st and 2 nd	D240
595000035	ELECTRONIC INSTRUMENTATION	6	Comp	1 st	D230
595000036	ELECTRONIC POWER SYSTEMS	4.5	Comp	1 st	D230
	ELECTIVE SUBJECTS/INTERNSHIP CREDITS	13.5	Elec	1 st	
595000037	PROJECT MANAGEMENT	4.5	Comp	2 nd	D400
595000038	ELECTRONIC SYSTEMS ENGINEERING	4.5	Comp	2 nd	D230
595000040	FINAL DEGREE PROJECT *	12	Comp	1 st and 2 nd	ALL
	ELECTIVE SUBJECTS/INTERNSHIP CREDITS	9	Elec	2 nd	

(*) A B2 English certificate is required for the enrolment.

TYPE OF COURSES:

- "*Elem*" – Elementary.
- "*Comp*" – Compulsory.
- "*Elec*" – Elective.

ELECTIVE COURSES

TYPE	SPEC	SEMESTER	YEAR	CODE	COURSES	ECTS	REQUIREMENTS	DEPT. CODE	
A	EC	1 st	4 th	595010044	PRODUCT ENGINEERING	4.5	--	D510	
			4 th	595010048	HARDWARE FOR INTERNET OF THINGS (IoT)	4.5	028	D230	
			4 th	595010049	PROGRAMMING IN LABVIEW	4.5	--	D510/ D230	
		2 nd	3 st	595010041	INDUSTRIAL AUTOMATION	4.5	--	D230	
			3 st	595010047	EMBEDDED SYSTEMS DESIGN USING RASPBERRY PI	4.5	--	D230	
			4 th	595010042	PHOTOVOLTAIC ENGINEERING	4.5	--	D510	
			4 th	595010046	POWER ELECTRONICS	4.5	--	D230	
B	SC	1 st		595020327	WAVE TRANSMISSION AND PROPAGATION	6	019	D250	
				595020328	COMMUNICATIONS ELECTRONICS I	6	20322/023	D250	
		2 nd		595020322	ANALOG ELECTRONICS	6	009/015	D250	
				595020331	COMMUNICATIONS ELECTRONICS II	6	20328	D250	
	SO	1 st		595020126	AUDIO ENGINEERING I	4.5	20122	D250	
				595020128	IMAGE AND VIDEO TECHNOLOGIES	6	20122	D250	
		2 nd		595020122	SOUND AND IMAGES FUNDAMENTALS	6	--	D250	
				595020131	AUDIO ENGINEERING II	6	20126/20122	D250	
	TL	1 st		595020228	TRANSMISSION SYSTEMS	6	022	D230	
				595020234	MOBILE COMMUNICATIONS NETWORKS	6	016/020	D230	
		2 nd		595020222	ADVANCED APPLICATION PROGRAMMING	6	005/011	D230	
				595020231	NETWORKS AND SERVICES SECURITY	6	011/016/020	D230	
	C		1 st		595030060	RENEWABLE ENERGY	3	--	D510
					595030061	SMART HOME	3	016	D230
				595030062	TELECOMMUNICATION COMMON INFRASTRUCTURES	3	--	D250	
				595030064	AIMING AT B2 IN ENGLISH	3	--	D240	
				595030066	INTRODUCTION TO MACHINE LEARNING	3	--	D230	
2 nd				595030065	WOMEN IN SCIENCE AND TECHNOLOGY	3	--	D510	
				595030070	MANAGEMENT OF TECHNOLOGICAL INNOVATION	3	--	D230	
				595030072	DISCRETE MATHEMATICS	3	--	D540	
				595030073	DYNAMICAL SYSTEMS	3	002/003/010	D540	
				595030074	CIS TO DEFENCE	3	--	D250	
PE		1 st and 2 nd		595030075	P1 INTERNSHIP CREDITS	3	*		
				595030076	P2 INTERNSHIP CREDITS	4.5	*		
				595030077	P3 INTERNSHIP CREDITS	6	*		
				595030078	P4 INTERNSHIP CREDITS	9	*		
				595030079	P5 INTERNSHIP CREDITS	12	*		

ELECTIVE COURSES

- Each student must pass at least 31.5 elective ECTS to complete the degree.

TYPES OF ELECTIVE COURSES

Each academic year, the School Board will establish the range of optional courses.

A Type - Elective courses to strengthen the specialty.

B Type - Elective courses to strengthen other specialties.

C Type - Elective courses for the four degrees.

PE - Internship credits.

ADMISSION REQUIREMENTS FOR ELECTIVE COURSES

To enroll on an elective course, every student must have taken or passed the course(s) shown in the **REQUIREMENTS** box.

SPEC.:

EC: Electronics for Communications.

SC: Telecommunications Systems.

SO: Image and Sound.

TL: Telematics.

DEPARTMENT CODES

D230: Telematics and Electronic Engineering.

D240: Linguistics Applied to Science and Technology.

D250: Audiovisual and Communications Engineering

D400: Organization Engineering, Business Management and Statistics.

D510: Physical Electronics, Electrical Engineering and Applied Physics.

D540: Mathematics Applied to Information and Communication Technologies.