



Study Plan of Electrical Communications Engineering Program (2022/2023)

Semester	Code	Course	Pre-requisites	Credit Hours	Lectures	Tutorials	Practical
1	EB 101	Engineering Mathematics (1)	None	3	2	2	1
	EB 111	Engineering Mechanics (1)	None	3	3	1	0
	EB 121	Engineering Physics (1)	None	3	2	1	2
	EB 141	Engineering Drawing & Descriptive Geometry (1)	None	3	2	3	0
	UEC 01E	Computer Skills & Programming Concepts (1)	None	2	1	1	2
	HU 121	Engineering Perspectives and Technology	None	2	1	0	2
18 Cr	EB 131	General Chemistry	None	2	1	1	2
2	EB 102	Engineering Mathematics (2)	EB 101	3	2	2	1
	EB 112	Engineering Mechanics (2)	EB 111	3	3	1	0
	EB 122	Engineering Physics (2)	EB 121	3	2	1	2
	EB 142	Engineering Drawing & Descriptive Geometry (2)	EB 141	2	1	2	1
	UCS 01	Communication Skills (1)	None	1	0	0	2
	UEC 02E	Computer Skills & Programming Concepts (2)	UEC 01E	2	1	1	2
	UGE 01	English Language (1)	None	2	1	0	2
18 Cr	EM 170	Introduction to Manufacturing Processes	None	2	1	1	2
3	EB 103	Engineering Mathematics (3)	EB 102	3	2	2	1
	EB 123	Modern Physics	EB 122	3	2	2	1
	EC 201	Computer Programming	UEC 02E	3	2	1	2
	EE 271	Energy Systems	None	3	2	2	1
	EE 291	Electric Circuits	EB 102 & EB 122	4	3	2	1
	HU 113	Technical Reports Writing and Presentations	None	2	1	0	2
18 Cr	EB 104	Linear Algebra	EB 102	3	2	2	1
4	EB 204	Engineering Mathematics (4)	EB 103	3	2	2	1
	EE 202	Digital Logic Fundamentals	UEC 02E	3	2	2	1
	EE 211	Electronics Workshop	None	1	0	0	3
	EE 213	Introduction to Electronic Circuits	EB 122 & EE 291	3	2	2	1
	EE 293	Electrical Measurements and Instrumentation (1)	EE 291	3	2	2	1
	UGE 02	English Language (2)	UGE 01	2	1	0	2
18 Cr	EB 207	Numerical Analysis using MATLAB	EB 102	4	3	1	2
5	EE 203	Introduction to Microprocessors	EE 202	3	2	2	1
	EE 224	Micro-Electronic Devices & Circuits	EE 213	3	2	2	1
	EE 241	Signals and Systems	EB 204	3	2	2	1
	EE 260	Electromagnetic Fields	EB 204 & EB 122	3	2	2	1
	HU 131	HU Elective (1): Project Management	None	2	2	1	0
	OR HU 132	OR Accounting and Cost for Engineering					
OR HU 134	OR Engineering Economy						
OR HU 135	OR Sales, Marketing and Communications Techniques						
18 Cr	EB 205	Probabilities and Random Variables	EB 204	3	3	1	0
6	EE 261	Electromagnetic Waves & Transmission Media	EE 260	3	2	2	1
	EE 251	Analog Communications	EE 241	3	2	2	1
	EE 225	Solid State Electronics	EE 213	3	2	2	1
	EE 228	Analog Integrated Circuits	EE 224	3	2	2	1
	EB 206	Special Functions	EB 204	3	3	1	0
	EE 262	Microwave Engineering	EE 261	3	2	2	1
7	EE 290	Control Systems (1)	EB 204 & EE 291	3	2	2	1
	EE 252	Communications Laboratory	EE 251	1	0	0	3
	EE 255	Digital Communications (1)	EE 251	3	2	2	1
	EM 237	Thermofluids for Electrical Engineering Students	EB 112 & EB 122	4	3	2	1
	EE 342	Digital Signal Processing	EE 241 & EB 205	3	2	2	1
	EE 385	Electrical Power and Machines	EE 271 & EE 291	4	3	2	1
8	EE 304	Microprocessor Based System Design	EE 202 & EE 203	3	2	2	1
	EE 256	Digital Communications (2)	EE 255	3	2	2	1
	EE 363	Microwave Measurements and Laboratory	EE 262	2	1	0	4
	EE 364	Antenna Theory and Design	EE 262	3	2	2	1
	UGA 03	Professional Communication in Arabic Language	None	2	2	0	0
	EE 350	Communication Systems	EE 255	4	3	2	1
17 Cr	EE 367	Elective (1): Fundamentals of Acoustics	EE 251 & EE 261	3	2	2	1
9	EE 206	Elective (2): Microprocessor Interfacing	EE 203				
	OR EE 221	OR Microwave Devices	OR EE 262				
	OR EE 226	OR Integrated Circuit Devices	OR EE 225	3	2	2	1
	OR EE 316	OR Optical Electronics	OR EE 228				
	OR EE 338	OR Digital Integrated Circuits	OR EE 228				
	EE 325	Elective (3): Introduction to Computer Networks	EE 255				
OR EE 346	OR Introduction to Computer Vision	OR EE 241					
OR EE 347	OR Applications of Artificial Intelligence in Communications	OR EE 241	3	2	2	1	
OR EE 353	OR Data Communication Networks	OR EE 255					
OR EE 359	OR Error Correcting Codes	OR EE 256					
19 Cr	EE 400-1	Graduation Project (1)	Dept. Approval	4	3	2	2
10	EE 344	Elective (4): Digital Filters	EE 241				
	OR EE 345	OR Digital Image Processing	OR EE 241	3	2	2	1
	OR EE 357	OR Multimedia Communication Systems	OR EE 256				
	OR EE 358	OR Information Theory	OR EE 256				
	EE 387	Elective (5): Microprocessor Based Process Control	EE 390				
	OR EE 389	OR PLC Applications in Industry	OR EE 203 & EE 290	3	2	2	1
OR EE 390	OR Control Systems (2)	OR EE 290					
OR EE 391	OR Digital Control Systems	OR EE 290					
OR EE 397	OR Fuzzy Logic Control	OR EE 203 & EE 290					
EE 354	Mobile Communication Systems	EE 255	3	2	2	1	
HU 141	HU Elective (2): Ethics and Human Rights	None	2	2	0	0	
OR HU 142	OR Legislations and Contracts	None	2	1	0	0	
OR HU 143	OR Principles of Law	None	2	0	0	0	
OR HU 144	OR Communication Laws and Rules	None	2	0	0	0	
UCS 02	Communication Skills (2)	UCS 01	1	0	0	2	
16 Cr	EE 400-2	Graduation Project (2)	EE 400-1	4	3	2	2

Total = 177 Cr