

Bachelor of Science in Electrical Engineering

1st Year / 1st Sem								1st Year / 2nd Sem							
Course	Code	Course Title	TH	LH	CH	Co- requisite	Pre-requisite	Course	Code	Course Title	TH	LH	CH	Co- requisite	Pre-requisite
CHEM	101	General Chemistry I	3	3	4			PHY	102	General Physics II	3	3	4	MA 102	PHY 101
PHY	101	General Physics I	3	3	4	MA 101		MA	102	Calculus II	4	0	4		MA 101
MA	101	Calculus I	4	0	4			ESP	102	Introduction to Report Writing	3	0	3		ESP 101
ESP	101	Introduction to Academic Discourse	3	0	3			ARB	102	Objective Writing	2	0	2		ARB 101
ARB	101	Practical Grammar	2	0	2			ISL	101	Belief and Its Consequences	2	0	2		
PE	101	Health and Physical Education	1	0	1			CSE	101	Introduction to Programming	1	3	2		
			16	6	18						15	6	17		
2nd Year / 1st Sem								2nd Year / 2nd Sem							
Course	Code	Course Title	TH	LH	CH	Co- requisite	Pre-requisite	Course	Code	Course Title	TH	LH	CH	Co- requisite	Pre-requisite
MA	201	Calculus III	3	0	3		MA 102	MA	203	Elements of Differential Equations	3	0	3		MA 102
MA	202	Probability and Statistics for Engineers	3	0	3		MA 102	CSE	201	Introduction to Data Science	3	0	3		CSE 101, MA 202
ESP	201	Academic and Professional Communication	3	0	3		ESP 102	ARB	201	Literary Styles	2	0	2		ARB 102
ISL	201	Professional Ethics	2	0	2		ISL 101	EE	202	Electronics I	3	0	3		EE 201, CSE 221
CSE	221	Digital Logic Design	3	0	3		PHY 102	EE	203	Electronics I Lab	0	3	1	EE 202	
EE	201	Electrical Circuits I	3	0	3		PHY 102, MA 102	EE	204	Signals and Systems	3	0	3		EE 201
								EE	205	Electric Circuits II	2	0	2		EE 201
								EE	206	Electric Circuits II Lab	0	3	1	EE 205	
			17	0	17						16	6	18		
3rd Year / 1st Sem								3rd Year / 2nd Sem							
Course	Code	Course Title	TH	LH	CH	Co- requisite	Pre-requisite	Course	Code	Course Title	TH	LH	CH	Co- requisite	Pre-requisite
CSE	301	Introduction to Artificial Intelligence	3	0	3		CSE 201	MA	301	Numerical Methods for Engineers	3	0	3		CSE 101, MA 201
ISL	301	Human Right in Islam	2	0	2		ISL 201	MS	301	Business and Entrepreneurship	2	0	2		ESP 201
PHY	321	Electricity and Magnetism	3	0	3		MA 201, MA 203, PHY 102	EE	306	Fundamentals of Electrical Engineering Design	3	0	3		EE 202
EE	301	Electronics II	3	0	3		EE 202	EE	307	Communications Engineering	3	0	3		EE 202
EE	302	Electrical Energy Engineering	3	0	3		EE 205	EE	308	Communications Engineering Lab	0	3	1	EE 307	
EE	303	Electrical Energy Engineering Lab	0	3	1	EE 302		EE	309	Digital Systems Engineering	3	0	3		CSE 101, CSE 221
EE	304	Control Engineering	3	0	3		EE 204	EE	310	Digital Systems Engineering Lab	0	3	1	EE 309	
EE	305	Control Engineering Lab	0	3	1	EE 304		EE	300	Design Project I	1	3	2		ESP 201, EE 301, EE 302, EE 304
			17	6	19						15	9	18		
4th Year / 1st Sem								4th Year / 2nd Sem							
Course	Code	Course Title	TH	LH	CH	Co- requisite	Pre-requisite	Course	Code	Course Title	TH	LH	CH	Co- requisite	Pre-requisite
EE	401	Electromagnetic Waves and Applications	3	0	3		PHY 321	EE	490	Internship	0	0	6		122 Credits Completion
EE	402	Electromagnetic Waves and Applications Lab	0	3	1	EE 401									
EE	4xx	Electrical Engineering Elective I	3	0	3		EE 300								
EE	4xx	Electrical Engineering Elective II	3	0	3		EE 300								
EE	4xx	Electrical Engineering Elective III	3	0	3		EE 300								
EE	400	Design Project II	1	3	2		MS 301, EE 306, EE 300								
			13	6	15						0	0	6		
Electives								Electives							
Course	Code	Course Title	TH	LH	CH	Co- requisite	Pre-requisite	Course	Code	Course Title	TH	LH	CH	Co- requisite	Pre-requisite
EE	403	Digital Image Processing	3	0	3		EE 300	EE	408	Power System Analysis	3	0	3		EE 300
EE	404	Introduction to Nanotechnology	3	0	3		EE 300	EE	409	Modeling of Electric Machines	3	0	3		EE 300
EE	405	System-on Chip (SoC) Design	3	0	3		EE 300	EE	410	Power Electronics	3	0	3		EE 300
EE	406	Distributed Control System and SCADA	3	0	3		EE 300	EE	411	Power System Planning and Operation	3	0	3		EE 300
EE	407	Industrial Communication Systems	3	0	3		EE 300	EE	412	Renewable Energy	3	0	3		EE 300