



**Curriculum for the Bachelor Degree in Electrical Engineering/ Network systems
and Security**

**Guidance plan for the network systems and security engineering
specialization**

First Year					
First semester			Second Semester		
Course No.	Course title	Cr.H	Course No.	Course title	Cr.H
CS101	Computer skills & e-learning	1	BSE0203	Programming for Engineers	3
AAL101	Applied Arabic Language	3	AEL102	Applied English Language 2	3
AEL101	Applied English Language (1)	3	30202102	Calculus 2	3
30202101	Calculus 1	3	30201102	General Physics 2	3
30201101	General Physics 1	3	IEC101	Innovation, Entrepreneurship, and creativity	2
30206101	General Chemistry 1	3	NE101	National Education & Univ. Behavior	3
30201111	Physics 1 Lab	1	30206111	General Chemistry 1 Lab	1
Total		17	Total		18

Second Year					
First semester			Second Semester		
Course No.	Course title	Cr.H	Course No.	Course title	Cr.H
BSE0102	Engineering Drawing	2	ELE 0212	Electrical Circuits 2	3
ELE 0211	Electrical Circuits 1	3	ELE 0214	Electrical Circuits Lab.	1
ELE 0213	Digital Logic Design	3	ELE 0216	Electronics 1	3
ELE 0205	Linear Algebra	3	ELE 0228	Microprocessor Systems	3
ELE 5251	Object-Oriented Programming	3	ELE 5252	Data Structures and Algorithms	3
30202203	Deferential Equations	3	ELE 5254	Data Structures and Algorithms Lab.	1
		1	ELE 5216	Digital Logic Design Lab.	1
				University Elective	3
Total		17	Total		18

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Third Year					
First semester			Second Semester		
Course No.	Course title	Cr.H	Course No.	Course title	Cr.H
ELE 5361	Computer Architecture and Organization	3	ELE 0322	Data Communications	3
ELE 0216	Electronics 1	1	ELE 0344	Control Systems	3
ELE 0321	Signals & Systems Analysis	3	ELE 0306	Numerical Methods	3
ELE 5364	Computer Architecture and Organization Lab	1	ELE 5362	Operating systems	3
ELE 0335	Electrical Machines	3	ELE 5354	Database Systems	3
BSE0203	Technical Writing and Professional Ethics	3	ELE 0328	Microprocessor Systems Lab.	1
BSE0102	Engineering Workshop	1			
ELE 0202	Statistics and Probabilities for Engineers	3			
Total		18	Total		16

Fourth Year					
First semester			Second Semester		
Course No.	Course title	Cr.H	Course No.	Course title	Cr.H
ELE 0431	Control Systems Lab.	1	ELE 0442	Field Training	3
ELE 5453	Artificial Intelligence and Machine Learning	3	ELE 6472	Fundamentals of Cyber Security	3
ELE 5445	Database Systems Lab.	1	ELE 6464	Computer Networks Lab.	1
BSE0401	Engineering Economy	3	ELE 6468	Network Programming	3
ELE 6461	Fundamentals of Computer Networks	3	ELE 6465	Wireless Networks	3
	University Elective	3	ELE 6466	Networks Protocols	3
Total		14	Total		16



Established 1997

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Fifth Year					
First semester			Second Semester		
Course No.	Course title	Cr.H	Course No.	Course title	Cr.H
ELE 0541	Project 1	1	-	Specialization Elective	3
-	Specialization Elective	3	ELE 0542	Project 2	3
ELE 6571	Networks Digital Forensics Systems	3	ELE 6572	Encryption and Network Security Systems	3
35001101	Military Sciences	3	ELE 6574	Networks Systems Security Lab.	1
ELE 6565	Networks Protocols Lab.	1	ELE 6576	Networks Digital Forensics Systems Lab.	1
	University Elective	3	ELE 6566	Cloud Computing	3
Total		14	Total		14