

SEMESTER 1

Course Code	Course Title	CREDIT HOURS		
		Theory	Lab	Total
HUM-101	Pakistan Studies	2	0	2
HUM-103	Functional English	3	0	3
BS-103	Applied Physics	3	0	3
BS-104	Calculus	3	0	3
EE-111	Linear Circuit Analysis	3	1	4
EE-112	Electronic Workshop	0	1	1
EE-151	Computer Fundamentals & Programming	0	2	2
Total		14	4	18

SEMESTER 2

Course Code	Course Title	CREDIT HOURS		
		Theory	Lab	Total
HUM-102	Islamic Studies	2	0	2
HUM-104	Communication & Presentation Skills	3	0	3
BS-108	Linear Algebra	3	0	3
EE-113	Computer Aided Design	0	1	1
EE-114	Electronic Devices & Circuits	3	1	4
EE-152	Object Oriented Programming	3	1	4
Total		14	3	17

SEMESTER 3

Course Code	Course Title	CREDIT HOURS		
		Theory	Lab	Total
BS-202	Complex Variables & Transforms	3	0	3
EE-215	Electrical Network Analysis	3	1	4
EE-216	Digital Logic Design	3	1	4
EE-217	Electronic Circuit Design	3	1	4
EE-253	Data Structure & Algorithm Design	2	1	3
Total		14	4	18

SEMESTER 4

Course Code	Course Title	CREDIT HOURS		
		Theory	Lab	Total
BS-201	Differential Equations	3	0	3
EE-218	Electrical Machines	3	1	4
EE-219	Electromagnetic Field Theory	2	0	2
EE-221	Instrumentation and Measurement	3	1	4
EE-222	Microprocessor and Microcontroller Systems	3	1	4
Total		14	3	17

SEMESTER 5

Course Code	Course Title	CREDIT HOURS		
		Theory	Lab	Total
HUM-305	Critical Thinking	3	0	3
EE-301	Probability and Random Variables	2	0	2
EE-323	Analog & Digital Communications	3	1	4
EE-324	Signals & Systems	3	1	4
EE-325	Power Electronics	3	1	4
Total		14	3	17

SEMESTER 6

Course Code	Course Title	CREDIT HOURS		
		Theory	Lab	Total
EE-361	Engineering Economics & Project Management	3	0	3
BS-302	Numerical Analysis	2	0	2
EE-326	Control Engineering	3	1	4
EE-331	Digital Signal Processing & Filter Design	3	1	4
EE-332	Industrial Automation & Robotics	3	1	4
Total		14	3	17

SEMESTER 7

Course Code	Course Title	CREDIT HOURS		
		Theory	Lab	Total
EE-441	Computer Networks & Data Communication (IDEE-I)	3	1	4
EE-471	Elective-I (Microwave Engineering)	3	0	3
EE-472	Elective-II (Embedded Systems Design)	3	1	4
HUM-406	Research Methods & Thesis Writing	3	0	3
EE-499	FYP Part-I	0	3	3
Total		12	5	17

SEMESTER 8

Course Code	Course Title	CREDIT HOURS		
		Theory	Lab	Total
EE-442	Wireless & Mobile Communication (IDEE-II)	3	0	3
EE-473	Digital Instrumentation System	2	1	3
EE-462	Entrepreneurship	3	0	3
HUM-408	Professional Psychology	3	0	3
EE-499	FYP Part-II	0	3	3
Total		11	4	15

List of Elective Courses

Course Code	Course Title	Credit Hours
EE-471	Microwave Engineering	(3 + 0)
EE-472	Embedded Systems Design	(3 + 1)
EE-473	Digital Instrumentation System	(2 + 1)
EE-474	Industrial Electronics	(3 + 1)
EE-475	FPGA-Based System Design	(3 + 1)
EE-476	Laser And Fiber Optics	(3 + 0)
EE-477	Digital Image Processing	(3 + 0)
EE-478	Pattern Recognition and Matching	(3 + 0)
EE-479	Advanced Robotics	(3 + 1)
EE-481	Digital Control Systems	(3 + 1)
EE-482	Introduction to Neural Networks	(3 + 1)
EE-483	Fuzzy Logic & Simulation	(3 + 1)
EE-484	Artificial Intelligence	(3 + 1)
EE-485	Mechatronics Applications	(3 + 0)