



Total Semesters / Credit Hours

8 Semesters
133-140

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
Semester: 1				
HUM100	English Comprehension and Composition	3(3, 0)		
MTH231	Linear Algebra	3(3, 0)		
PHY121	Applied Physics for Engineers	4(3, 1)		
MTH104	Calculus and Analytical Geometry	3(3, 0)		
EEE113	Engineering Drawing	1(0, 1)		
EEE112	Engineering Mechanics and Thermodynamics	3(3, 0)		
Semester: 2				
EEE241	Digital Logic Design	4(3, 1)		
MTH105	Multivariable Calculus	3(3, 0)		MTH104
MTH241	Ordinary Differential Equations	3(3, 0)		MTH104
CSC141	Introduction to Computer Programming	4(3, 1)		
EEE121	Electric Circuits Analysis I	4(3, 1)		PHY121
Semester: 3				
EEE222	Electric Circuits Analysis II	4(3, 1)		EEE121 MTH241
EEE223	Signals and Systems	4(3, 1)		MTH241
EEE281	Introduction to Power Engineering	3(3, 0)		
EEE231	Electronics I	4(3, 1)		EEE121
CSC241	Object Oriented Programming	4(3, 1)		CSC141
Semester: 4				
EEE374	Electrical Measurements and Instrumentation	4(3, 1)		EEE121
EEE261	Electromagnetic Theory	3(3, 0)		MTH105
EEE251	Probability Methods in Engineering	3(3, 0)		MTH104 MTH231
EEE371	Electric Machines	4(3, 1)		EEE222

EEE232	Electronics II	4(3, 1)		EEE231
Semester: 5				
MTH375	Numerical Computations	3(2, 1)		CSC141 MTH104
EEE325	Control Systems	4(3, 1)		EEE223
EEE351	Principles of Communication Systems	4(3, 1)		EEE223 EEE251
				EEE223 EEE251
EEE342	Microprocessor Systems and Interfacing	4(3, 1)		EEE241
EEE	Major Elective I*	3(3, 0)		
Semester: 6				
ECO300	Engineering Economics	3(3, 0)		
EEE324	Digital Signal Processing	4(3, 1)		EEE223
EEE	Major Elective II*	3(3, 0)		
EEE	Major Elective III*	3(3, 0)		
xxxxxx	EE Open***/Major Elective IV*	3(3, 0)		
Semester: 7				
HUM102	Report Writing Skills	3(3, 0)		HUM100
EEE490	Final Year Project (Part I)**	1(0, 1)		
EEE	Major Elective V*	3(3, 0)		
xxxxxx	Non Engineering Elective I	3(3, 0)		
HUM110	Islamic Studies	3(3, 0)		
Semester: 8				
MGT462	Project Planning and Management	3(3, 0)		
EEE490	Final Year Project (Part II)	5(0, 5)		
HUM111	Pakistan Studies	3(3, 0)		
xxxxxx	EE Open/Free Elective***	3(3, 0)		
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Power Elective				
Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
EEE338	Power Electronics	4(3, 1)		EEE232
EEE486	Power System Analysis	3(3, 0)		EEE222
EEE484	High Voltage Engineering	4(3, 1)		EEE222
EEE488	Renewable and Alternate Energy Systems	3(3, 0)		
EEE382	Power Generation	3(3, 0)		EEE222
EEE483	Power System Operation and Control	3(3, 0)		EEE222

EEE481	Design of Electrical Machines	3(3, 0)		EEE371
EEE485	Power System Protection	3(3, 0)		EEE484
EEE435	Industrial Electronics	4(3, 1)		EEE338
EEE489	Power Plant Engineering	3(3, 0)		EEE222
EEE381	Power Transmission	4(3, 1)		EEE222
EEE487	Power Distribution and Utilization	4(3, 1)		EEE222

Telecommunication Electives				
Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
EEE314	Data Communication and Computer Networks	4(3, 1)		
EEE463	Antenna and Radio Wave Propagation	4(3, 1)		EEE261
EEE353	Digital Communication Systems	4(3, 1)		EEE351 EEE352
EEE354	Telecommunication Systems Engineering	3(3, 0)		EEE351 EEE352
EEE362	Microwave Engineering	4(3, 1)		EEE232 EEE261
EEE455	Optical Fiber Communications	3(3, 0)		EEE351 EEE353
EEE454	Transmission and Switching Systems	3(3, 0)		EEE351 EEE353
CSC341	Network Programming	4(3, 1)		CSC141 EEE314
EEE456	Broadband Technologies	3(3, 0)		EEE314
EEE464	Wireless Communication Systems	3(3, 0)		EEE351 EEE353
EEE465	Microwave and Satellite Communication Systems	3(3, 0)		EEE351 EEE352
EEE466	Radars and Navigation Aids	3(3, 0)		EEE463
EEE467	Telecommunication Policies Standards and Regulations	3(3, 0)		
CSC336	Web Engineering	4(3, 1)		CSC141

Electronics Electives				
Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
EEE338	Power Electronics	4(3, 1)		EEE232
EEE434	VLSI Design	4(3, 1)		EEE232 EEE241
EEE344	Digital System Design	4(3, 1)		CSC141 EEE241
EEE435	Industrial Electronics	4(3, 1)		EEE231 EEE374

EEE446	Real Time Embedded Systems	4(3, 1)		EEE342
EEE333	Analog Integrated Circuits, Analysis and Design	4(3, 1)		EEE232
EEE436	Opto-electronics	3(3, 0)		EEE232
EEE437	Analog Filter Design	4(3, 1)		EEE232
EEE362	Microwave Engineering	4(3, 1)		EEE232 EEE261
EEE438	RF Electronics	3(3, 0)		

Computer Electives				
Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
CSC112	Algorithms and Data Structures	4(3, 1)		CSC141
EEE253	Computer Graphics	4(3, 1)		CSC141
EEE324	Digital Signal Processing	4(3, 1)		
EEE314	Data Communication and Computer Networks	4(3, 1)		
EEE343	Computer Organization and Architecture	4(3, 1)		EEE241
CSC322	Operating Systems Concepts	3(3, 0)		CSC112
EEE446	Real Time Embedded Systems	4(3, 1)		EEE342
EEE461	Neural Networks	3(3, 0)		
EEE462	Artificial Intelligence	3(2, 1)		CSC141
CSC492	Software Engineering	4(3, 1)		
EEE415	Digital Image Processing	4(3, 1)		EEE324
EEE344	Digital System Design	4(3, 1)		CSC141 EEE241
EEE434	VLSI Design	4(3, 1)		EEE232 EEE241
CSC421	Systems Programming	4(3, 1)		CSC141
CSC271	Database Systems	4(3, 1)		CSC112
CSC334	Distributed Computing	4(3, 1)		CSC141 EEE314

Control Electives				
Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
EEE447	Robotics	3(3, 0)		EEE325
EEE461	Neural Networks	3(3, 0)		
EEE462	Artificial Intelligence	3(2, 1)		CSC141
EEE421	Introduction to Digital Control Systems	4(3, 1)		EEE325
EEE422	Fuzzy Logic	4(3, 1)		EEE325
EEE423	Applied Control Systems	4(3, 1)		EEE325
EEE424	Optimal Control	4(3, 1)		EEE325
EEE425	Introduction to Adaptive Control	4(3, 1)		EEE325
EEE426	Stochastic Control	4(3, 1)		EEE325
EEE427	Multivariable Control	4(3, 1)		EEE325
EEE428	Introduction to Non-linear Control	3(3, 0)		EEE325
Non-Engineering Electives				
Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
LAW300	Corporate Law	3(3, 0)		
MGT403	Entrepreneurship	3(3, 0)		
MGT131	Financial Accounting	3(3, 0)		
MGT330	Financial Management	3(3, 0)		
MGT350	Human Resource Management	3(3, 0)		
MGT450	HRM Policies and Practices	3(3, 0)		
MGT460	Operations Management	3(3, 0)		
MGT522	Marketing of IT and Telecom Products	3(3, 0)		
HUM202	Creative Thinking and Decision Making	3(3, 0)		
HUM220	Introduction to Psychology	3(3, 0)		
HUM200	Business Communication Workshop	3(3, 0)		HUM100
HUM320	Introduction to Sociology	3(3, 0)		

HUM400	Business Communication	3(3, 0)		
MTH374	Optimization	3(3, 0)		
MTH467	Operations Research	3(3, 0)		

Note:

In a semester system, courses are normally defined in terms of credit hours. Some courses have further subdivision into theory and lab work. One credit hour of theory is normally equal to one lecture hour in the class room per week in the semester. One credit hour of lab work, however, is equivalent to three contact hours in the lab per week in the semester.

Courses with pre-requisite(s) can only be registered if the prerequisite courses have been passed.