COMSATS Institute of Information Technology

Scheme of Studies
(BS (ECE) DDP for 2011-2012)

Total Semesters / Credit Hours
8 Semesters
134-137

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
Semester: 1				
HUM100	English Comprehension and Composition	3(3, 0)		
HUM110	Islamic Studies	3(3, 0)		
PHY121	Applied Physics for Engineers	4(3, 1)		
MTH101	Calculus I	3(3, 0)		
EEE113	Engineering Drawing	1(0, 1)		
EEE112	Engineering Mechanics and Thermodynamics	3(3, 0)		
Semester: 2				
HUM111	Pakistan Studies	3(3, 0)		
MTH102	Calculus II	3(3, 0)		MTH101
MTH231	Linear Algebra	3(3, 0)		
CSC141	Introduction to Computer Programming	4(3, 1)		
EEE121	Electric Circuits Analysis – I	4(3, 1)		MTH101 PHY121
Semester: 3				
MTH203	Calculus III	3(3, 0)		MTH102
MTH242	Differential Equations	3(3, 0)		MTH102
EEE241	Digital Logic Design	4(3, 1)		
EEE231	Electronics – I	4(3, 1)		EEE121
CSC241	Object Oriented Programming	4(3, 1)		CSC141
Semester: 4				
MTH261	Probability Theory and Random Variables	3(3, 0)		
EEE261	Electromagnetic Theory	3(3, 0)		MTH203
EEE222	Electric Circuits Analysis – II	3(3, 0)		EEE121 MTH242
EEE223	Signals and Systems	4(3, 1)		MTH242
EEE375	Power Distribution and Utilization	3(3, 0)		
Semester: 5				
EEE232	Electronics – II	4(3, 1)		EEE222 EEE231

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)	
EEE371	Electric Machines	4(3, 1)		EEE222	EEE261
EEE343	Computer Organization	4(3, 1)		EEE241	
EEE324	Digital Signal Processing	4(3, 1)		EEE223	
EEE351	Principles of Communication Systems	4(3, 1)		EEE223	
Semester: 6					
ECO300	Engineering Economics	3(3, 0)			
EEE325	Control Systems	4(3, 1)		EEE223	EEE232
EEE342	Microprocessor Systems and Interfacing	4(3, 1)		EEE241	
EEE314	Data Communication and Computer Networks	4(3, 1)			
CSC322	Operating Systems Concepts	3(3, 0)		CSC141	
Semester: 7					
HUM102	Report Writing Skills	3(3, 0)		HUM100	
xxxxxx	Elective I****	3(3, 0)			
xxxxxx	Non-Engineering Elective	3(3, 0)			
EEE490	Final Year project (Part-I)	1(0, 1)			
CSC112	Algorithms and Data Structures	4(3, 1)		CSC141	
Semester: 8					
MGT462	Project Planning and Management	3(3, 0)			
xxxxxx	Elective II****	3(3, 0)			
xxxxxx	Elective III****	3(3, 0)			
EEE490	Final Year Project (Part-II)	5(0, 5)			

List of Electives****					
Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)	
EEE344****	Digital System Design	4(3, 1)		CSC141	EEE241
CSC334****	Distributed Computing	4(3, 1)		CSC141	EEE314
CSC492****	Software Engineering	3(3, 0)			
EEE464	Wireless Communication Systems	3(3, 0)		EEE351	
CSC421	Systems Programming	4(3, 1)		CSC141	CSC322
CSC341	Network Programming	4(3, 1)		CSC141	EEE314
EEE434	VLSI Design	4(3, 1)		EEE232	EEE241
EEE440	Computer Architecture	3(3, 0)		EEE343	

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)	
EEE446	Real Time Embedded Systems	4(3, 1)		EEE342	
EEE415	Digital Image Processing	4(3, 1)		EEE223	MTH231
CSC271	Database Systems	4(3, 1)		CSC112	
CSC462	Artificial Intelligence	3(2, 1)		CSC141	
CSC336	Web Engineering	4(3, 1)		CSC141	
EEE447	Robotics	3(3, 0)		CSC462	EEE446

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)			
MTH374	Optimization	3(3, 0)		MTH102	
MTH467	Operations Research	3(3, 0)		MTH102	
MTH375	Numerical Computing	3(2, 1)		CSC141	MTH102
HUM400	Business Communication	3(3, 0)			

Note

3 credit hours of theory is equivalent to 3 hours of lectures whereas 1 credit hour of lab is equivalent to 3 hours of lab session. All the lab sessions are graded. Students have to pass both theory and lab to earn the course credits.

Courses with prerequisites can only be allowed if all prerequisite courses have been passed.

* With the consent of Academic Advisor, Project Supervisor & Course Instructor, the students can select an elective course in their area of specialization according to their aptitudes and requirements of the final year project.

** With the consent of Academic Advisor, Project Supervisor & Course Instructor, the students can take any course of EE which he/she has not taken before (including the electives of TE, EPE, CE, EL) according to his/her aptitude/future plans and further requirement (if any) of his/her final year project.

*** The list of Electives may be revised from time to time and will be offered by the department subject to the availability of the faculty.

Note
**** These courses are essential for Students pursuing dual degree program.