



**COMSATS Institute of Information
Technology**

Scheme of Studies

(BS (ECE) for 2011-2012)

FAd1

Total Semesters / Credit Hours
8 Semesters
135-138

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)		<u>MTH101</u>
MTH231	Linear Algebra	3(3, 0)		
CSC141	Introduction to Computer Programming	4(3, 1)		
EEE121	Electric Circuits Analysis I	4(3, 1)		<u>MTH101</u> <u>PHY121</u>
Semester: 3				
MTH203	Calculus III	3(3, 0)		<u>MTH102</u>
MTH242	Differential Equations	3(3, 0)		<u>MTH102</u>
EEE241	Digital Logic Design	4(3, 1)		
EEE231	Electronics I	4(3, 1)		<u>EEE121</u>
CSC241	Object Oriented Programming	4(3, 1)		<u>CSC141</u>
Semester: 4				
EEE251	Probability Methods in Engineering	3(3, 0)		<u>MTH102</u> <u>MTH231</u>
EEE261	Electromagnetic Theory	3(3, 0)		<u>MTH203</u>
EEE222	Electric Circuits Analysis II	4(3, 1)		<u>EEE121</u> <u>MTH242</u>
EEE223	Signals and Systems	4(3, 1)		<u>MTH242</u>
EEE375	Power Distribution and Utilization	3(3, 0)		
Semester: 5				
EEE232	Electronics II	4(3, 1)		<u>EEE222</u> <u>EEE231</u>

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

Bachelor of Science in Electrical Engineering (BSEE) with Major in Computer Technical Electives***

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
CSC421	Systems Programming	4(3, 1)		<u>CSC141</u> <u>CSC322</u>
CSC341	Network Programming	4(3, 1)		<u>CSC141</u> <u>EEE314</u>
EEE440	Computer Architecture	3(3, 0)		<u>EEE343</u>
EEE434	VLSI Design	4(3, 1)		<u>EEE232</u> <u>EEE241</u>
EEE446	Real Time Embedded Systems	4(3, 1)		<u>EEE342</u>
EEE415	Digital Image Processing	4(3, 1)		<u>EEE223</u> <u>MTH231</u>
CSC271	Database Systems	4(3, 1)		<u>CSC112</u>
CSC334	Distributed Computing	4(3, 1)		<u>CSC141</u> <u>EEE314</u>

Course Code	Course Title	Credit Hours	Corequisite(s)	Prerequisite(s)
CSC492	Software Engineering	3(3, 0)		
CSC462	Artificial Intelligence	3(2, 1)		<u>CSC141</u>
CSC336	Web Engineering	4(3, 1)		<u>CSC141</u>
EEE447	Robotics	3(3, 0)		<u>CSC462</u> <u>EEE446</u>
EEE344	Digital System Design	4(3, 1)		<u>CSC141</u> <u>EEE241</u>
EEE464	Wireless Communication Systems	3(3, 0)		<u>EEE351</u>

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