FA09-5010-FA10-SPIL

# **COMSATS** Institute of Information Technology Registrar Office, Principal Seat, Islamabad

No: CIIT-Reg/Notif-72/11/705

March 18, 2011

#### **NOTIFICATION**

On the recommendations of the Board of Studies for Electrical Engineering in its 13th meeting held on October, 26, 2010, the Board of Faculty of Engineering in its 10<sup>th</sup> meeting held on December, 14, 2010 approved the following Scheme of Studies for Bachelor of Science in Electrical (Computer) Engineering, BS (ECE) effective from Fall 2009.

This supersedes Notification No. CIIT-Dir(Acad)/Notif-118 dated September 15, 2009.

## **Scheme of Studies**

8 Semesters 134-137 Credit Hours

### Year 1, Semester 1

Course Code	Course Title	Constitute	
HUM100	English Comprehension and Composition	Credit Hours	Prerequisite(s)
HUM110	Islamic Studies	3(3, 0)	
PHY121		3(3, 0)	
MTH101	Applied Physics for Engineers Calculus I	4(3, 1)	
EEE113		3(3, 0)	
	Engineering Drawing	1(0, 1)	
EEE112	Engineering Mechanics and Thermodynamics	3(3, 0)	
	Total	17(15, 2)	

#### Semester 2

Course Code	Course Title	Calling	
HUM111	Pakistan Studies	Credit Hours <sup>1</sup>	Prerequisite(s)†
MTH102	Calculus II	3(3, 0)	
MTH231	The state of the s	3(3, 0)	MTH101
	Linear Algebra	3(3, 0)	
CSC141	Introduction to Computer Programming	4(3, 1)	
EEE121	Electric Circuits Analysis – I		
	7	4(3, 1)	MTH101,PHY121
	Total	17(15, 2)	

### Year 2, Semester 3

Course Code	Course Title	Cwedit II	
MTH203	Calculus III	Credit Hours <sup>1</sup>	Prerequisite(s)†
MTH242	Differential Equations	3(3, 0)	MTH102 🗸
EEE241	Digital Logic Design	3(3, 0)	MTH102 V
EEE231	Electronics – I	4(3, 1)	
CSC241	Object Oriented Programming	4(3, 1)	EEE121
		4(3, 1)	CSC141
	Total	18(15, 3)	

### Semester 4

Course Code	Course Title	Credit Hours	D
MTH263	Probability Theory and Random Variables		Prerequisite(s)†
EEE261	Electromagnetic Theory	3(3, 0)	
EEE222	Electric Circuit A 1	3(3, 0)	MTH203 ~
	Electric Circuits Analysis – II	3(3, 0)	MTH242,EEE121
EEE223	Signals and Systems	4(3, 1)	
EEE375	Power Distribution and Utilization	3(3, 0)	MTH242 V
	Total	16(15, 1)	

## Year 3, Semester 5

Course Code	Course Title	C W. XX	
EEE232	Electronics – II	Credit Hours	Prerequisite(s)†
EEE371	Electric Machines	4(3, 1)	EEE222,EEE231
		4(3, 1)	EEE222,EEE261
	Computer Organization	4(3, 1)	EEE241
EEE324	Digital Signal Processing	4(3, 1)	222211
EEE351	Principles of Communication Systems		EEE223
	Total	4(3, 1)	EEE223
	Total	20(15, 5)	

### Semester 6

Course Code	Course Title	C 11. xx 1	
ECO300	Engineering Economics	Credit Hours	Prerequisite(s)†
EEE325	Control Systems	3(3, 0)	
EEE342		4(3, 1)	EEE223,EEE232
	Microprocessor Systems and Interfacing	4(3, 1)	EEE241
CSC322	Data Communication and Computer Networks	4(3, 1)	DDB2+1 V
C3C322	Operating Systems Concepts	3(3, 0)	CSC141
	Total	18(15, 3)	C3C141 V

## Year 4, Semester 7

Course Code	Report Writing Skills	Credit Hours <sup>1</sup>	Prerequisite(s)
0.00	Major/Specialization Elective I*	3(3, 0)	HUM100
	Non-Engineering Elective	3(3, 0)/4(3, 1)	
EEE490	Final Year Project (Part-I)	3(3, 0)	
CSC112	Algorithms and Data Structures	1(0, 1)	
	Total	14-15(12,2-3)	CSC141 V

### Semester 8

Course Code	Course Title		
MGT462		Credit Hours	Prerequisite(s)
1407402	Project Planning and Management	3(3,0)	rerequisite(s)
	Major/Specialization Elective II	2(2,0)/4(2,1)	
	EE Open/Free Elective**	3(3, 0)/4(3, 1)	
EEE490		3(3, 0)/4(3, 1)	
DDD-470	Final Year Project (Part-II)	5(0, 5)	
	Total		
	20111	14-16(9,5-7)	

Grand Total: 134-137 Credit Hours

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

Course Code	Course Title	Credit Hours	Prerequisite(s)†
CSC421	Systems Programming	4(3, 1)	CSC322,CSC141
CSC341	Network Programming	4(3, 1)	EEE314,CSC141
EEE434	VLSI Design	4(3, 1)	EEE241,EEE232
EEE440	Computer Architecture	3(3, 0)	EEE343
EEE446	Real Time Embedded Systems	4(3, 1)	EEE342
EEE415	Digital Image Processing	4(3, 1)	MTH231,EEE223
CSC271	Database Systems	4(3, 1)	CSC112
CSC334	Distributed Computing	4(3, 1)	EEE314,CSC141
CSC492	Software Engineering	3(3, 0)	
CSC462	Artificial Intelligence	3(2, 1)	CSC141
CSC336	Web Engineering	4(3, 1)	CSC141
EEE447	Robotics	3(3, 0)	EEE446,CSC462
EEE3,44	Digital System Design	4(3, 1)	EEE241,CSC141
EEE464	Wireless Communication Systems	3(3, 0)	EEE351

<sup>&</sup>lt;sup>1</sup> 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.

Zinzaleeeee Niaz Ahmed Khaskheli Additional Registrar

#### Distribution:

- 1. Dean Faculty of Engineering, CIIT
- 2. All Campus Directors, CIIT
- 3. Chairman, Department of Electrical Engineering, CIIT
- 4. All HoD's/Incharges, Department of Electrical Engineering, CIIT Campuses.
- 5. All Incharges Examination Departments, CIIT
- 6. Controller of Examinations, CIIT.
- 7. Director P, D & HRD, CIIT
- 8. Additional Registrar (Academics), CIIT Islamabad Campus

#### CC:

- 1. Registrar CIIT
- 2. PS to Rector.

<sup>†</sup> Courses with prerequisites can only be allowed if all prerequisite courses have been passed.

<sup>\*</sup> 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.

<sup>\*\*</sup> 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.

<sup>\*\*\*</sup> 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.