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

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No: CIIT-Reg/Notif-732/12/1057 July 04, 2012

NOTIFICATION

Scheme of Studies of Bachelor of Science (BS) in Electrical (Electronics) Engineering, BS(EEE)

It is hereby notified that the Academic Council in its 13th Meeting held on June 04, 2012 approved the following scheme of studies of Bachelor of Science (BS) in Electrical (Electronics) Engineering, BS(EEE) with effect from Fall 2012 at CIIT system:

i.	Minimum Duration:	04 Years
ii.	Minimum No. of Semesters:	08
iii.	No of Credit Hours in each Semester:	14-20
iv.	**Core Courses:**	
	a. Engineering Courses (List Attached)	22
	b. Non Engineering Courses (List Attached)	14
v.	**Elective courses**	
	c. Major Electives*	02
	d. EE Open/Free Elective***	01
	e. Non-Engineering Electives****	01
vi.	**Total No. of Courses:**	40
vii.	**Total Credit Hours**	**136-139**

Note:
The Regulations relating to Undergraduate Degree Programs approved by the Competent Authority and amended from time to time shall also be applicable to this program.

This issues with the approval of the Competent Authority.

Nadeem Uddin Qureshi
Additional Registrar

Encl: **Tentative Plan of Studies**

Distribution:
1. Dean, Faculty of Engineering, CIIT
2. Dean of Research, Innovation and Commercialization (DORIC), CIIT
3. All Directors, CIIT System.
4. Incharge, CIIT Islamabad Campus.
5. Chairman, Department of Electrical Engineering, CIIT
6. All Incharges, Academic Sections, CIIT Campuses
7. All HoD's/Incharges, Department of Electrical Engineering, CIIT Campuses
8. Controller of Examinations, CIIT.
9. All Incharges, Examination Departments, CIIT Campuses.

CC:
1. PS to Rector
2. PA to Registrar

Core Courses

List of Engineering Courses

Sr No	Course Code	Course Title	Credit Hours[1]	Prerequisite(s)†
1	EEE112	Engineering Mechanics and Thermodynamics	3(3, 0)	
2	EEE113	Engineering Drawing	1(0, 1)	
3	EEE121	Electric Circuits Analysis I	4(3, 1)	MTH101,PHY121
4	EEE222	Electric Circuits Analysis II	4(3, 1)	MTH242,EEE121
5	EEE223	Signals and Systems	4(3, 1)	MTH242
6	EEE231	Electronics I	4(3, 1)	EEE121
7	EEE232	Electronics II	4(3, 1)	EEE222,EEE231
8	EEE241	Digital Logic Design	4(3, 1)	
9	EEE251	Probability Methods in Engineering	3(3, 0)	MTH102, MTH231
10	EEE261	Electromagnetic Theory	3(3, 0)	MTH203
11	EEE324	Digital Signal Processing	4(3, 1)	EEE223
12	EEE325	Control Systems	4(3, 1)	EEE223,EEE232
13	EEE338	Power Electronics	4(3, 1)	EEE232
14	EEE342	Microprocessor Systems and Interfacing	4(3, 1)	EEE241
15	EEE344	Digital System Design	4(3, 1)	EEE241,CSC141
16	EEE351	Principles of Communication Systems	4(3, 1)	EEE223
17	EEE371	Electric Machines	4(3, 1)	EEE222,EEE261
18	EEE374	Electrical Measurements and Instrumentation	4(3, 1)	EEE222
19	EEE375	Power Distribution and Utilization	3(3, 0)	
20	EEE434	VLSI Design	4(3, 1)	EEE241, EEE232
21	EEE490	Final Year Project (Part I)**	1(0, 1)	
22	EEE490	Final Year Project (Part II)**	5(0, 5)	

List of Non- Engineering Courses

Sr No	Course Code	Course Title	Credit Hours[1]	Prerequisite(s)†
1	CSC141	Introduction to Computer Programming	4(3, 1)	
2	CSC241	Object Oriented Programming	4(3, 1)	CSC141
3	ECO300	Engineering Economics	3(3, 0)	
4	HUM100	English Comprehension and Composition	3(3, 0)	
5	HUM102	Report Writing Skills	3(3, 0)	HUM100
6	HUM110	Islamic Studies	3(3, 0)	
7	HUM111	Pakistan Studies	3(3, 0)	
8	MGT462	Project Planning and Management	3(3, 0)	
9	MTH101	Calculus I	3(3, 0)	
10	MTH102	Calculus II	3(3, 0)	MTH101
11	MTH203	Calculus III	3(3, 0)	MTH102
12	MTH231	Linear Algebra	3(3, 0)	
13	MTH242	Differential Equations	3(3, 0)	MTH102
14	PHY121	Applied Physics for Engineers	4(3, 1)	

Jadwadi

Bachelor of Science in Electrical Engineering with Major in Electronics Technical Electives***

Course Code	Course Title	Credit Hours[1]	Prerequisite(s)†
EEE435	Industrial Electronics	4(3, 1)	EEE374, EEE232
EEE362	Microwave Engineering	4(3, 1)	EEE232, EEE261
EEE333	Analog Integrated Circuits, Analysis and Design	4(3, 1)	EEE232
EEE436	Applied Optoelectronics	3(3, 0)	EEE232
EEE437	Analog Filter Design	4(3, 1)	EEE222, EEE232
EEE446	Real Time Embedded Systems	4(3, 1)	EEE342
EEE438	RF Electronics	4(3, 1)	
EEE464	Wireless Communication Systems	3(3, 0)	EEE351

List of Non-Engineering Electives****

Course Code	Course Title	Credit Hours[1]	Prerequisite(s)†
HUM200	Business Communication Workshop	3(3, 0)	HUM100
HUM202	Creative Thinking and Decision Making	3(3, 0)	
HUM220	Introduction to Psychology	3(3, 0)	
HUM320	Introduction to Sociology	3(3, 0)	
HUM400	Business Communication	3(3, 0)	
LAW300	Corporate Law	3(3, 0)	
MGT131	Financial Accounting	3(3, 0)	
MGT330	Financial Management	3(3, 0)	
MGT350	Human Resource Management	3(3, 0)	
MGT403	Entrepreneurship	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
MTH375	Numerical Computations	3(2, 1)	MTH102, CSC141
MTH467	Operations Research	3(3, 0)	MTH102

[1] 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.

**Students must clear all the engineering subjects in the first five semesters as given in the tentative plan to be eligible for 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.

Note: 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.

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Tentative Plan of Studies

The course offering in each semester as given below is not fixed; it may vary depending on the availability of faculty and needs of the students.

8 Semesters 136-139 Credit Hours

Year 1, Semester 1

Course Code	Course Title	Credit Hours[1]	Prerequisite(s)†
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)	
	Total	17(15, 2)	

Semester 2

Course Code	Course Title	Credit Hours[1]	Prerequisite(s)†
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
	Total	**17(15, 2)**	

Year 2, Semester 3

Course Code	Course Title	Credit Hours[1]	Prerequisite(s)†
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
	Total	**18(15, 3)**	

Semester 4

Course Code	Course Title	Credit Hours[1]	Prerequisite(s)†
EEE251	Probability Methods in Engineering	3(3, 0)	MTH102, MTH231
EEE261	Electromagnetic Theory	3(3, 0)	MTH203
EEE222	Electric Circuits Analysis II	4(3, 1)	MTH242,EEE121
EEE223	Signals and Systems	4(3, 1)	MTH242
EEE375	Power Distribution and Utilization	3(3, 0)	
	Total	17(15, 2)	

Year 3, Semester 5

Course Code	Course Title	Credit Hours1	Prerequisite(s)†
EEE232	Electronics II	4(3, 1)	EEE222,EEE231
EEE371	Electric Machines	4(3, 1)	EEE222,EEE261
EEE324	Digital Signal Processing	4(3, 1)	EEE223
EEE351	Principles of Communication Systems	4(3, 1)	EEE223
EEE374	Electrical Measurements and Instrumentation	4(3, 1)	EEE222
	Total	**20(15, 5)**	

Semester 6

Course Code	Course Title	Credit Hours[1]	Prerequisite(s)†
ECO300	Engineering Economics	3(3, 0)	
EEE325	Control Systems	4(3, 1)	EEE223,EEE232
EEE342	Microprocessor Systems and Interfacing	4(3, 1)	EEE241
EEE338	Power Electronics	4(3, 1)	EEE232
EEE434	VLSI Design	4(3, 1)	EEE241, EEE232
	Total	**19(15, 4)**	

Year 4, Semester 7

Course Code	Course Title	Credit Hours[1]	Prerequisite(s)†
HUM102	Report Writing Skills	3(3, 0)	HUM100
	Major/Specialization Elective I	3(3, 0)/4(3, 1)	
	Non-Engineering Elective	3(3, 0)	
EEE490	Final Year Project (Part I)	1(0, 1)	
EEE344	Digital System Design	4(3, 1)	EEE241,CSC141
	Total	**14-15(12,2-3)**	

Semester 8

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

Grand Total: 136-139 Credit Hours