

Department of Electrical Engineering

0260 B.Sc. Electrical Engineering

Shift : Morning
Duration : 4 years, 8 semesters, 134 credit hours
Eligibility : F.Sc. (Pre-Engineering) / DAE (Electrical) or equivalent with at least 60% marks from any recognized Board and Entrance Test conducted by Educational Testing & Evaluation \ Agency (ETEA)

1st Semester

Course	Course Title	Credit Hours
CSC-101(1)	Intro to Computing	1
CSC-101(L)	Intro to Computing	1
EE 103(L)	Workshop Practice	1
ENG-116	Functional English	3
HUM-101	Islamic Studies/ Ethics/ Theology	2
MTS-122	Calculus and Analytical Geometry	3
PHY-102	Applied Physics	3
PHY-102(L)	Applied Physics	1

2nd Semester

Course	Course Title	Credit Hours
CSC-110(L)	Fundamentals of Programming	1
EE-101	Linear Circuit Analysis	3
EE-101(L)	Linear Circuit Analysis	1
ENG-101	Communication Skills	3
HUM-102	Pakistan Studies	2
MCE-102(L)	Engineering Drawing	1
MTS-123	Linear Algebra and Differential Equation	3

3rd Semester

Course	Course Title	Credit Hours
CSC-201(3)	Digital Logic Design	3
CSC-201(L)	Digital Logic Design	1
CSC-216	Data Structure and Algorithms	3
CSC-216(L)	Data Structure and Algorithms	1
EE-204	Electrical Network Analysis	3
EE-204(L)	Electrical Network Analysis	1
EE-209	Electronic Devices & Circuits	3
EE-209(L)	Electronic Devices & Circuits	1
MTS-120	Multi Variable Calculus	3

4th Semester

Course	Course Title	Credit Hours
EE-302	Signals & Systems	3
EE-302(L)	Signals & Systems	1
EE-2xx	Breadth Core-I	3
EE-2xx(L)	Breadth Core-I	1
MTS-216	Probability Methods for Engineers	3
MTS-2xx	IDEE-I (Thermodynamics)	3
MTS-305	Numerical Analysis	3

5th Semester

Course	Course Title	Credit Hours
EE-206	Electromagnetic Field Theory	3
EE-301	Electrical Machines	3
EE-301(L)	Electrical Machines	1
EE-304	Communication Systems	3
EE-304(L)	Communication Systems	1
HUM-108	Professional Ethics	3
MTS-xxx	IDEE-II (Computer Organization and Architecture)	3

6th Semester

Course	Course Title	Credit Hours
EE-303	Microprocessor Based system	3
EE-303(L)	Microprocessor Based system	1
EE-404	Linear Control System	3
EE-404(L)	Linear Control System	1
EE-3xx	Breadth Core-II	3
EE-3xx(L)	Breadth Core-II	1
EE-3xx	Elective-I	3
EE-3xx(L)	Elective-I	1
ENG-102	Technical Report Writing	3

7th Semester

Course	Course Title	Credit Hours
EE-4XX	Elective-II	3
EE-4XX(L)	Elective-II	1
EE-4XX	Elective-III	3
EE-4XX(L)	Elective-III	1
EE-4XX	Elective-IV	3
EE-499	Project Phase - I	3
MGT-xxx	Entrepreneurship Skills	3

8th Semester

Course	Course Title	Credit Hours
EE-4XX	Elective-V	3
EE-4XX	Elective-VI	3
EE-4XX	Elective-VI	1
EE-499	Project Phase - II	3
HRM-302	Organizational Behavior	3
MGT-XXX	Economics & Project Management	3

Department of Electrical Engineering

List of Courses under breadth core and elective options for specialization of the HEC's Course Framework for Engineering

Breadth Core Subjects (Power)

Instrumentation & Measurements
Power Distribution Utilization

Elective Courses For Electrical Engineering: (Power)

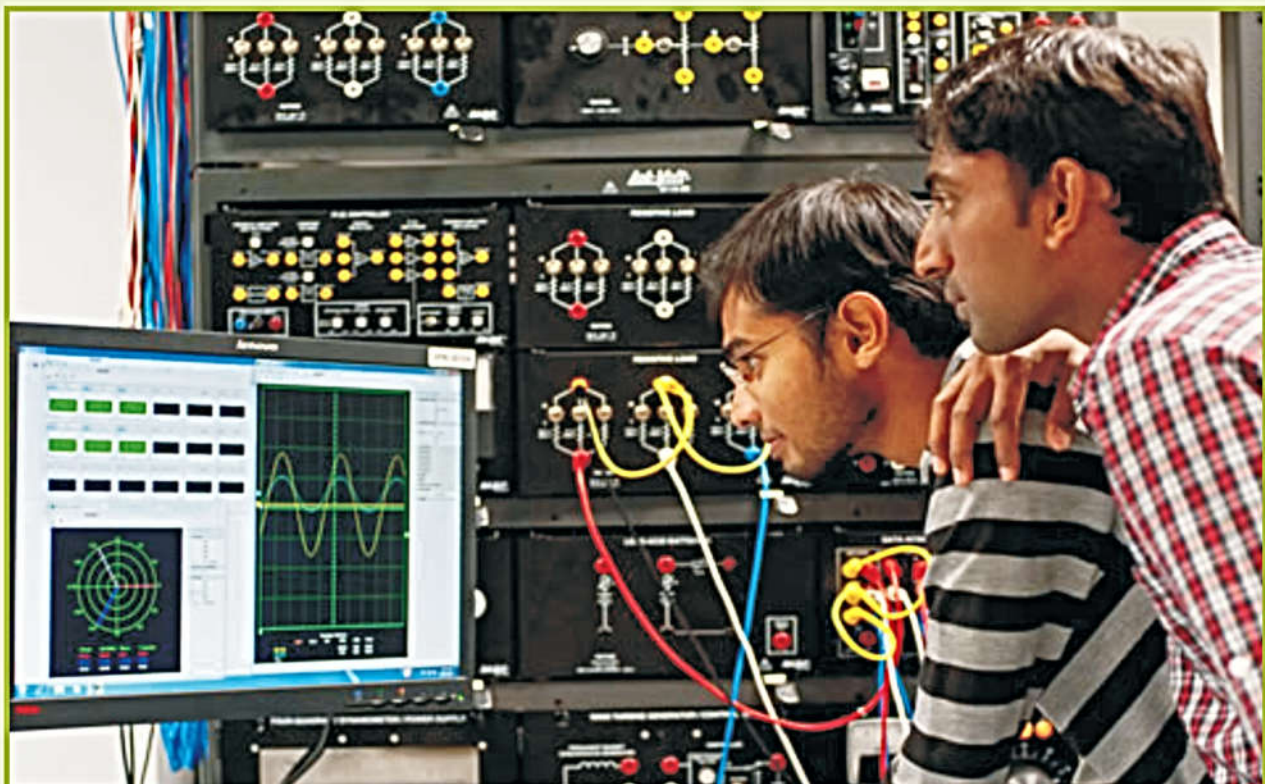
Advanced Electrical Machine
Power System Analysis
Power Generation
Electrical Power Transmission
Power Electronics
Power System Protection
Digital Signal Processing

Breadth Core Subjects (Electronics)

Electronic Circuit Design
Instrumentation & Measurements

Elective Courses For Electrical Engineering: (Electronics)

Wireless and Mobile Communication
Digital Electronics
Wave Propagation and Antenna
Introduction to Power
Power Electronics
Digital Image Processing
Digital Signal Processing



Department of Electrical Engineering

Breadth Core Subjects (Telecom)

Electronic Circuit Design

Computer Communication Networks

Elective Courses For Electrical Engineering: (Telecom)

Instrumentation and Measurements

Digital Image Processing

Wave Propagation & Antenna

Digital Signal Processing

Wireless & Mobile Communication

Digital Communication

Introduction to Power

Note : Pre-requisite for the award of degree :

The B.Sc. Electrical Engineering program students shall complete 6 to 8 weeks Internships in an organization acceptable to the university and shall get an internship letter/certificate from the concerned organization. The students who are already in service shall be exempted from internship.

