



### 3.1.9 Electrical Engineering

#### FIRST YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EE-125	Basic Electrical Engineering	3	1	4	EE-156	Engineering Drawing	0	2	2
PH-122	Applied Physics	3	1	4	EE-126	Circuit Analysis	3	1	4
EA-111	Functional English	2	0	2	MT-227	Differential Equation	3	0	3
ME-116	Basic Mechanical Engineering	3	0	3	CE-109	Engineering Surveying-I	2	1	3
MT-114	Calculus	3	0	3	EE-163	Computer and Programming	3	1	4
CS-113	Introduction to Computing	1	1	2	ES-105/ ES-127	Pakistan Studies OR Pakistan Studies (For Foreigners)	2	0	2

#### SECOND YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EL-240	Electronic Devices & Circuits	3	1	4	EE-282	Electromagnetic Fields	3	0	3
EE-264	Data Structures and Algorithms	2	1	3	EE-223	Instrumentation and Measurement	2	1	3
MT-272	Linear Algebra & Geometry	3	0	3	EE-232	Signals and Systems	3	1	4
MT-226	Multi Variable Calculus	3	0	3	TC-201	Digital Logic Design	2	1	3
EA-214	Academic Writing	3	0	3	MT-331	Probability and Statistics	3	0	3
ES-206/ ES-209	Islamic Studies OR Ethical Behaviour	2	0	2	EA-200	Community Service	-	-	NC

#### THIRD YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EE-346	Electrical Machines-I	2	1	3	EE-362	Power System Analysis	3	1	4
EE-395	Digital Signal Processing	2	1	3	EE-347	Electrical Machines-II	2	1	3
EE-359	Electrical Power Distribution and Utilization	3	1	4	EE-354	Embedded Systems	2	1	3
EE-313	Power Electronics	3	1	4	TC-306	Communication Systems	3	0	3
MT-442	Numerical Methods	3	0	3	EA-304	Business Communication & Ethics	3	0	3
					EA/ES-###	Foreign Language-I	-	-	NC

#### FINAL YEAR

Fall Semester				Spring Semester					
Course Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Th	Pr	Total			Th	Pr	Total
EE-457	Electrical Power System Protection	3	1	4	MG-482	Organizational Behavior	3	0	3
EF-304	Occupational Safety and Health	2	0	2	MG-481	Entrepreneurship	3	0	3
EE-352	Electrical Power Transmission	3	0	3	CS-439	Computer Communication Networks	2	0	2
EE-375	Feedback Control Systems	3	1	4	EE-414	Power Generation	3	0	3
EE-401	Electrical Engineering Project*	0	3	3	EF-305	Engineering Economics & Management	3	0	3
EA/ES-###	Foreign Language-II	-	-	NC	EE-401	Electrical Engineering Project	0	3	3

\* Duration one academic year: Requires literature survey and preliminary work during this Semester

