

SYLLABUS OF ELECTRICAL ENGINEERING

SEM - I											
Subject Code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Tutorial Work/Practical Marks		Total Marks	Remarks
		Theory	Tutorial	Practical		ESE (E)	PA (M)	Viva (V)	PA (I)		
2110014	Calculus	3	2	0	5	70	30	30	20	150	
2110002	Communication Skills	2	0	2	4	70	30	30	20	150	
2110005	Elements of Electrical Engineering Engineering	4	0	2	6	70	30	30	20	150	
2110007	Environmental Studies	3	0	0	3	70	30	0	0	100	
2110003	Computer Programming and Utilization	3	1	2	6	70	30	30	20	150	
2110006	Elements of Mechanical Engineering	4	0	2	6	70	30	30	20	150	
	Total	19	3	8	30						
Core Infrastructure - 1	Concept of Infrastructure, Urban Planning and SEZ	3	-	2	5	70	30	30	20	150	Institute Level Core Subject to be delivered by Infrastructure Professionals

SEM - II											
Subject Code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Tutorial Work/Practical Marks			Remarks
		Theory	Tutorial	Practical		ESE (E)	PA (M)	Viva (V)	PA (I)	Total Marks	
2110015	Vector Calculus & Linear Algebra	3	2	0	5	70	30	30	20	150	
2110013	Engineering Graphics					70	30	30	20	150	
2110011	Physics	3	0	2	5	70	30	30	20	150	
2110016	Basic Electronics	4	0	2	6	70	30	30	20	150	
2110017	Electrical and Electronics Workshop	0	0	4	4	0	0	80	20	100	
2990001	Contributor Personality Development					70	30	30	20	150	
	Total	16	2	12	30						
Core Infrastructure - 2	Rail and Road	3	-	2	5	70	30	30	20	150	Institute Level Core Subject to be delivered by Infrastructure Professionals

SEM - III											
Subject Code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Tutorial Work/Practical Marks			Remarks
		Theory	Tutorial	Practical		ESE (E)	PA (M)	Viva (V)	PA (I)	Total Marks	
2130002	Advance Engineering Mathematics	3	2	0	5	70	30	30	20	150	
2130004	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	
2130901	Circuits and Networks	4	0	2	6	70	30	30	20	150	
2131004	Digital Electronics	4	0	2	6	70	30	30	20	150	
2131005	Electrical Machines	3	0	2	5	70	30	30	20	150	
2131006	Electronic Devices and Circuits	4	0	2	6	70	30	30	20	150	
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	
	Total	21	2	8	34						
Core Infrastructure -3	Ports and Logistics	3	1	2	6	70	30	30	20	150	Institute Level Core Subject to be delivered by Infrastructure Professionals

SEM - IV											
Subject Code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Tutorial Work/Practical Marks			Remarks
		Theory	Tutorial	Practical		ESE (E)	PA (M)	Viva (V)	PA (I)	Total Marks	
2140910	Digital Electronics	3	0	2	5	70	30	30	20	150	
2140906	AC Machines	4	0	2	6	70	30	30	20	150	
2140907	Applied Thermal and Hydraulic Engineering	3	0	0	3	70	30	0	0	100	
2140908	Electrical Power Generation	4	0	2	6	70	30	30	20	150	
2140909	Field Theory	3	2	0	5	70	30	30	20	150	
2141005	Signals and Systems	3	0	2	5	70	30	30	20	150	
2140002	Design Engineering - I B	0	0	3	3	0	0	80	20	100	
	Total	20	2	8	33						
Core Infrastructure - 4	Renewable Energy	3		2	5	70	30	30	20	150	Institute Level Core Subject to be delivered by Infrastructure Professionals

SEM - V											
Subject Code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Tutorial Work/Practical Marks		Total Marks	Remarks
		Theory	Tutorial	Practical		ESE (E)	PA (M)	Viva (V)	PA (I)		
2150903	Power Electronics – I	3	0	2	5	70	30	30	20	150	
2150907	Microprocessor and Microcontroller Architecture & Interfacing	4	0	2	6	70	30	30	20	150	
2150908	Electrical Power System – I	3	0	0	3	70	30	0	0	100	
2150909	Control System Engineering	4	0	2	6	70	30	30	20	150	
2150904	Elements of Electrical Design	2	0	2	4	70	30	30	20	150	
2150001	Design Engineering - II A	0	0	3	3	0	0	80	20	100	
2150002	Institute Elective - Cyber Security	0	1	2	3	0	0	80	20	100	
2150003	Institute Elective - Disaster Management	3	0	0	3	70	30	0	0	100	
	Total				30						
Core Infrastructure - 5	Water and Waste Water Management	3	0	0	3	70	30	0	0	100	Institute Level Core Subject to be delivered by Infrastructure Professionals

Semester VI											
		Teaching Scheme(Hours)				Uni Exam (Theory) (E)	Uni Exam (Practical) (E)	Continuous Evaluation Process			
Subject Code	Subject Name	Theory	Tutorial	Practical	Credits				Practical (I)	Total Marks	Remarks
160901	Electrical Machine - III	3	0	2	5	70	—	30	50	150	
160902	Power Electronics - II	4	0	2	6	70	—	30	50	150	
160903	Microcontrol ler	3	0	2	5	70	—	30	50	150	
160904	High Voltage Engineering	4	0	2	6	70	—	30	50	150	
160905	Electrical & Electronic Measurement	3	0	2	5	70	—	30	50	150	
160906	Theory of Electromagne tics	3	0	0	3	70	—	30	50	150	
	TOTAL	20	0	10	30						
Core Infrastructure - 6	Power	3	-	2	5	70	—	30	50	150	Institute Level Core Subject to be delivered by Infrastructure Professionals

Semester VII											
		Teaching Scheme(Hours)				Uni Exam (Theory) (E)	Uni Exam (Practical) (E)	Continuous Evaluation Process			
Subject Code	Subject Name	Theory	Tutorial	Practical	Credits				Practical (I)	Total Marks	Remarks
170901	Inter Connected Power System	3	0	2	5	70	30	30	20	150	
170902	Electrical Machine Design-I	3	0	2	5	70	30	30	20	150	
170903	Power System Protection	3	0	2	5	70	30	30	20	150	
170904	Industrial Instrumentation	3	0	2	5	70	30	30	20	150	
170905	Advanced Power System - I (Department Elective – I)	4	0	2	6	70	30	30	20	150	
170906	Advanced Power Electronics - I (Department Elective - I)	4	0	2	6	70	30	30	20	150	
170907	Advanced Microcontrollers & Embedded System	4	0	2	6	70	30	30	20	150	
170001	Project - I	0	0	4	4	0	100	0	50	150	
	TOTAL	16	0	14	30						
Core Infrastructure - 7	Roads and Bridges	3	-	2	5	70	—	30	50	150	Institute Level Core Subject to be delivered by Infrastructure Professionals

Semester VIII											
		Teaching Scheme (Hours)				Uni Exam (Theory) (E)	Uni Exam (Practical) (E)	Continuous Evaluation Process			
Subject Code	Subject Name	Theory	Tutorial	Practical	Credits				Practical (I)	Total Marks	Remarks
180901	Commissioning of Electrical Equipment's	3	0	2	5	70	30	30	20	150	
180902	Electrical Power Utilization	3	0	0	3	70	0	30	50	150	
180903	Power System Practice and Design	3	0	0	3	70	0	30	50	150	
180904	Electrical Machine Design II	3	0	2	5	70	30	30	20	150	
180905	Project II	0	0	8	8	0	100	0	50	150	
180906	Advanced Power System II (Department Elective – II)	4	0	2	6	70	30	30	20	150	
180907	Advanced Power Electronics II (Department Elective - II)	4	0	2	6	70	30	30	20	150	
180908	Advanced Processor and Controllers (Department Elective - II)	4	0	2	6	70	30	30	20	150	
	TOTAL	16	0	14	30						
Core Infrastructure - 8	Airports	3	-	2	5	70	—	30	50	150	Institute Level Core Subject to be delivered by Infrastructure Professionals