



# Curriculum Structure



## Highlights

- Last board of studies was conducted in May 2019 to implement AICTE model curriculum 2019.
- UGC guidelines on choice based credit system are followed.

### Credit Requirement

- Core and Foundation Courses : 142 Credits
- Project Work: 14 Credits
- Industrial Training: 2 Credits.
- Open Electives: 8 Credits (min).
- Generic Electives: 6 Credits (min).



## I<sup>st</sup> Semester

S. No.	Course Code	Course Title	Credits
01	ENG101F	Communication Skills	3
02	PHY101C	Physics	4
03	CHM101C	Chemistry	4
04	MTH103C	Mathematics-I	3
05	BIO101F	Environmental Science	3
06	MEC101C	Engineering Graphics and Design	3



## 2<sup>nd</sup> Semester

S. No.	Course Code	Course Title	Credits
01	CIV150C	Engineering Mechanics	3
02	MTH153C	Mathematics-II	4
03	CSE150F	Programming for Problem Solving	3
04	MEC150C	Workshop Practice	3
05	ELE150C Basic	Electrical Engineering	3
06	CSE151F	Programming Lab	1
07	PHY150C	Physics Lab	1
08	CHM150C	Chemistry Lab	1



## 3<sup>rd</sup> Semester

S. No.	Course Code	Course Title	Credits
01	ELE201C	Electromagnetic Field Theory	3
02	ELE202C	Network Analysis	4
03	ECE213C	Analog Electronics	3
04	ELE205C	Signals and Systems	3
05	MTH203C	Applied Mathematics for Engineers	3
06	ECE214C	Analog Electronics Lab	1
07	ELE203C	Basic Electrical Engineering Lab	1
08	ELE204C	Introduction to Simulation Softwares	1
09	XXX0xx	Open Elective	Y



## 4<sup>th</sup> Semester

S. No.	Course Code	Course Title	Credits
01	ELE251C	Electrical Machines-I	4
02	STA253C	Probability and Statistics	3
03	ECE263C	Digital Electronics	3
04	ELE252C	Control Systems	4
05	ELE253C	Electrical Engineering Materials	3
06	ELE254C	Electrical Machines-I Lab	1
07	ECE264C	Digital Electronics Lab	1
08	ELE255C	Control Systems Lab	1
09	XXX0xx	Open Elective	Y

5<sup>th</sup> Semester

S. No.	Course Code	Course Title	Credits
01	ELE302C	Electrical Machines-II	4
02	ELE303C	Power Systems-I	4
03	MTH308C	Numerical Methods in Engineering	3
04	ECE313C	Microprocessors and Microcontrollers	3
05	ELE304C	Electrical Measurements & Instrumentation	4
06	ELE305C	Electrical Machines-II Lab	1
07	ELE306C	Power Systems-I Lab	1
08	ELE307C	Electrical Measurements & Instrumentation Lab	1
09	ECE314C	Microprocessor & Microcontroller Lab	1
10	XXX0xx	Open Elective	Y



## 6<sup>th</sup> Semester

S. No.	Course Code	Course Title	Credits
01	ELE351C	Power Systems-II	4
02	ELE352C	Power Electronics	4
03	ELE353C	Electrical Machine Design	3
04	ECE364C	Communication Systems	3
05	ELE354C	Power Systems-II Lab	4
06	ELE355C	Power Electronics Lab	1
07	ELE356C	Modeling and Simulation of Electrical Systems	1
08	XXX3xxG	Generic Elective	X
09	ELE3xxE	Elective (Discipline Centric)	3
10	XXX0xx	Open Elective	Y





## 7<sup>th</sup> Semester

S. No.	Course Code	Course Title	Credits
01	ELE401C	Electric Drives	4
02	ELE402C	Switchgear and Protection	4
03	ELE404C	Project (Minor)	4
04	ECE403C	Switchgear and Protection Protection Lab	1
05	XXX3xxG	Elective (Generic)	X
06	ELE4xxE	Elective (Discipline Centric)	3
07	XXX0xx	Open Elective	Y
08	ELE405C	Seminar on Industrial Training	2



## 8<sup>th</sup> Semester

S. No.	Course Code	Course Title	Credits
01	ECE462C	Digital Signal Processing	3
02	ELE450C	Project (Major)	10
03	DMS-CC-IM01	Industrial Management and Economics of Marketing	3
04	ELE4xxE	Elective (Discipline Centric)	3
05	ECE463C	Digital Signal Processing Lab	1
06	XXX0xx	Open Elective	Y



## Open Electives

S. No.	Course Code	Course Title	Credits
01	ELE001	Technology: What, Why and why not?	2
02	ELE002	Introduction to Electrical Technology	2
03	ELE003	Electricity in daily life	2



## Electives (Discipline Centric)

S. No.	Course Code	Course Title	Credits
01	ELE350E	Utilization of Electrical Energy	3
02	ELE351E	Special Electrical Machines	3
03	ELE352E	Computational Electromagnetics	3
04	ELE353E	Sensors and Transducers	3
05	ELE401E	Advanced Control Systems	3
06	ELE402E	Power Station Practice	3
07	ELE403E	Power System Operation and Control	3
08	ELE404E	High Voltage Engineering	3
09	ELE450E	Advanced Power Electronics	3
10	ELE451E	Digital Control Systems	3
11	ELE452E	FACTS	3
12	ELE453E	EHV AC & DC Transmission	3
13	ELE454E	Energy Conservation & Auditing	3



## Generic Electives

S. No.	Course Code	Course Title	Credits
01	ELE350G	Renewable Energy systems	3
02	ELE351G	Fuzzy Logic and ANN	3
03	ELE352G	Biomedical Engineering	3
04	ELE353G	Applied Linear Algebra	3
05	ELE401G	Optimization for Engineering Design	3
06	ELE402G	Electric Hybrid Vehicles	3
07	ELE403G	Virtual Instrumentation Lab	2



## PhD Level Courses

S. No.	Course Code	Course Title	Credits
01	ELE501E	Linear Systems Theory	4
02	ELE502E	Mathematical Methods in Control	4
03	ELE503E	Model order Reduction	4
04	ELE504E	Optimal Control Theory	4
05	ELE505E	PWM For Voltage Source Converter	4
06	ELE506E	Renewable Energy and Smart Grid	4
07	ELE507E	Nonlinear Control Systems	4
08	ELE508E	Power System Dynamics and Control	4
09	ELE509E	Advanced Electrical Drives	4
10	ELE510E	Electrical Energy Conservation	4