

BACHELOR OF TECHNOLOGY (ELECTRICAL ENGINEERING)

First Year:

1st Semester

Teaching Scheme					Contact Hours/Week			Exam Duration (h)		Relative Weights (%)				
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
Group A														
1	MA101	Mathematics - I	ASC	4	3	1	0	3	0	25	-	25	50	-
2	AP101	Physics - I	ASC	4	3	0	2	3	0	15	15	30	40	-
3	AC101	Chemistry	ASC	4	3	0	2	3	0	15	15	30	40	-
4	ME101	Basic Mechanical Engineering	AEC	4	4	0	0	3	0	25	-	25	50	-
5	ME103	Workshop Practice	AEC	2	0	0	3	0	3	-	50	-	-	50
6	HU101	Communication Skills	HMC	3	3	0	0	3	0	25	-	25	50	-
Total				21	16	1	7							
Group B														
1	MA101	Mathematics - I	ASC	4	3	1	0	3	0	25	-	25	50	-
2	AP101	Physics - I	ASC	4	3	0	2	3	0	15	15	30	40	-
3	EE101	Basic Electrical Engineering	AEC	4	3	0	2	3	0	15	15	30	40	-
4	CO101	Programming Fundamentals	AEC	4	3	0	2	3	0	15	15	30	40	-
5	ME105	Engineering Graphics	AEC	2	0	0	3	0	3	-	50	-	-	50
6	EN101	Introduction to Environmental Science	AEC	3	3	0	0	3	0	25	-	25	50	-
Total				21	15	1	9							

2nd Semester

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weights (%)				
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
Group A														
1	MA102	Mathematics - II	ASC	4	3	1	0	3	0	25	-	25	50	-
2	AP102	Physics - II	ASC	4	3	0	2	3	0	15	15	30	40	-
3	EE102	Basic Electrical Engineering	AEC	4	3	0	2	3	0	15	15	30	40	-
4	CO102	Programming Fundamentals	AEC	4	3	0	2	3	0	15	15	30	40	-
5	ME102	Engineering Graphics	AEC	2	0	0	3	0	3	-	50	-	-	50
6	EN102	Introduction to Environmental Science	AEC	3	3	0	0	3	0	25	-	25	50	-
Total				21	15	1	9							

Group B

1	MA102	Mathematics - II	ASC	4	3	1	0	3	0	25	-	25	50	-
2	AP102	Physics - II	ASC	4	3	0	2	3	0	15	15	30	40	-
3	AC102	Chemistry	ASC	4	3	0	2	3	0	15	15	30	40	-
4	ME104	Basic Mechanical Engineering	AEC	4	4	0	0	3	0	25	-	25	50	-
5	ME106	Workshop Practice	AEC	2	0	0	3	0	3	-	50	-	-	50
6	HU102	Communication Skills	HMC	3	3	0	0	3	0	25	-	25	50	-
Total				21	16	1	7							

List of Departmental Elective Courses

S. No.	Elective Code	Title of Elective	Elective no.
1.	EE 305	Signals and Systems	DEC 1 and DEC 2
2.	EE 307	Power Station Practices	
3.	EE 309	Special Electrical Machines	
4.	EE 311	Energy Efficient Motors	
5.	EE 313	Linear Integrated Circuits	
6.	EE 315	Digital Control and State Variable Analysis	
7.	EE 317	Communication Systems	
8.	EE 319	Digital System Design	
9.	EE 321	Soft Computing Techniques	
10.	EE 323	Microcontroller and Embedded Systems	
11.	EE 308	Power System Operation and Control	DEC 3 and DEC 4
12.	EE 310	Renewable Energy Systems	
13.	EE 312	Power System Optimization	
14.	EE 314	Power Electronic Applications to Power Systems	
15.	EE 316	Electrical Energy Storage Systems	
16.	EE 318	Switched Mode Power Supplies	
17.	EE 320	VLSI Design	
18.	EE 322	IC Technology	
19.	EE 324	Data Communication and Computer Networks	
20.	EE 326	CMOS Analog Integrated Circuits	
21.	EE 411	Design, Estimation & Costing of Industrial Electrical Systems	DEC 5
22.	EE 413	Power System Modeling & Simulation	
23.	EE 415	Power System Reliability	
24.	EE 417	Design of Electrical Machines	
25.	EE 419	Advanced Topics in Electrical Machines	
26.	EE 421	Pulse Width Modulation for Power converters	
27.	EE 423	AI and Expert Systems	
28.	EE 425	Advanced Analog Circuit Design	
29.	EE 427	Computer Architecture	
30.	EE 404	Power System Dynamics & Stability	
31.	EE 406	Distribution Systems Analysis & Control	DEC 6, DEC 7 and DEC 8
32.	EE 408	Restructured Power Systems	
33.	EE 410	Power System Planning	
34.	EE 412	High Voltage Engineering	
35.	EE 414	Distributed Generation	
36.	EE 416	Grid Integration of Renewable Energy Sources	
37.	EE 418	Selected Topics in Power Electronics	
38.	EE 420	Power Quality	
39.	EE 422	HVDC Transmission	
40.	EE 424	Flexible AC Transmission Systems	
41.	EE 426	Smart Grid	
42.	EE 428	Digital Image Processing	
43.	EE 430	Process Instrumentation & Control	
44.	EE 432	Filter Design	
45.	EE 434	Advanced Communications	
46.	EE 436	Computer Control of Processes	
47.	EE 438	Microcontroller & Embedded Systems	
48.	EE 440	DSP Applications to Electromechanical Systems	
49.	EE 442	SCADA & Energy Management Systems	
50.	EE 444	Robotics and Machine Vision	
51.	EE 446	Utilization of Electrical Energy & Traction	

Table-4 University Elective Courses

S.No.	SUBJECT CODE	SUBJECTS
1.	CO351	Enterprise & Java Programming
2.	CO353	E-commerce & ERP
3.	CO355	Cryptography & Information Security
4.	CO357	Operating System
5.	CO359	Intellectual Property Rights & Cyber Laws
6.	EC351	Mechatronics
7.	EC353	Computer Vision
8.	EC355	Embedded System
9.	EC357	Digital Image Processing
10.	EC359	VLSI Design
11.	EE351	Power Electronics Systems
12.	EE353	Electrical Machines and Power Systems
13.	EE355	Instrumentation Systems
14.	EE357	Utilization of Electrical Energy
15.	EE359	Non-conventional Energy Systems
16.	EE361	Embedded Systems
17.	EN351	Environmental Pollution & E- Waste Management
18.	EN353	Occupational Health & Safety Management
19.	EN355	GIS & Remote Sensing
20.	EP351	Physics of Engineering Materials
21.	EP353	Nuclear Security
22.	HU351	Econometrics
23.	MA351	History Culture & Excitement of Mathematics
24.	ME351	Power Plant Engineering
25.	ME353	Renewable Sources of Energy
26.	ME355	Combustion Generated Pollution
27.	ME357	Thermal System
28.	ME359	Refrigeration & Air Conditioning
29.	ME361	Industrial Engineering
30.	ME363	Product Design & Simulation
31.	ME365	Computational fluid dynamics
32.	ME367	Finite Element Methods
33.	ME369	Total Life Cycle Management
34.	ME371	Value Engineering
35.	MG351	Fundamentals of Financial Accounting and Analysis
36.	MG353	Fundamentals of Marketing
37.	MG355	Human Resource Management
38.	MG357	Knowledge and Technology Management
39.	PE351	Advance Machining Process
40.	PE 353	Supply Chain Management
41.	PE355	Work Study Design
42.	PE357	Product Design & Simulation
43.	PE359	Total Life Cycle Management
44.	PE361	Total Quality Management
45.	PT361	High Performance Polymers
46.	PT363	Separation Technology
47.	PT365	Non-Conventional Energy
48.	PT367	Polymer Waste Management
49.	PT369	Nanotechnology in Polymers
50.	PT371	Applications of Polymer Blends and Composite

BACHELOR OF TECHNOLOGY (ELECTRICAL & ELECTRONICS ENGINEERING)

First Year:

1st Semester

Teaching Scheme					Contact Hours/Week			Exam Duration (h)		Relative Weights (%)				
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
Group A														
1	MA101	Mathematics - I	ASC	4	3	1	0	3	0	25	-	25	50	-
2	AP101	Physics – I	ASC	4	3	0	2	3	0	15	15	30	40	-
3	AC101	Chemistry	ASC	4	3	0	2	3	0	15	15	30	40	-
4	ME101	Basic Mechanical Engineering	AEC	4	4	0	0	3	0	25	-	25	50	-
5	ME103	Workshop Practice	AEC	2	0	0	3	0	3	-	50	-	-	50
6	HU101	Communication Skills	HMC	3	3	0	0	3	0	25	-	25	50	-
Total				21	16	1	7							
Group B														
1	MA101	Mathematics - I	ASC	4	3	1	0	3	0	25	-	25	50	-
2	AP101	Physics – I	ASC	4	3	0	2	3	0	15	15	30	40	-
3	EE101	Basic Electrical Engineering	AEC	4	3	0	2	3	0	15	15	30	40	-
4	CO101	Programming Fundamentals	AEC	4	3	0	2	3	0	15	15	30	40	-
5	ME105	Engineering Graphics	AEC	2	0	0	3	0	3	-	50	-	-	50
6	EN101	Introduction to Environmental Science	AEC	3	3	0	0	3	0	25	-	25	50	-
Total				21	15	1	9							

2nd Semester

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weights (%)				
S. No.	Subject Code	Course Title	Subject Area	Credit	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
Group A														
1	MA102	Mathematics - II	ASC	4	3	1	0	3	0	25	-	25	50	-
2	AP102	Physics – II	ASC	4	3	0	2	3	0	15	15	30	40	-
3	EE102	Basic Electrical Engineering	AEC	4	3	0	2	3	0	15	15	30	40	-
4	CO102	Programming Fundamentals	AEC	4	3	0	2	3	0	15	15	30	40	-
5	ME102	Engineering Graphics	AEC	2	0	0	3	0	3	-	50	-	-	50
6	EN102	Introduction to Environmental Science	AEC	3	3	0	0	3	0	25	-	25	50	-
Total				21	15	1	9							
Group B														
1	MA102	Mathematics – II	ASC	4	3	1	0	3	0	25	-	25	50	-
2	AP102	Physics – II	ASC	4	3	0	2	3	0	15	15	30	40	-
3	AC102	Chemistry	ASC	4	3	0	2	3	0	15	15	30	40	-
4	ME104	Basic Mechanical Engineering	AEC	4	4	0	0	3	0	25	-	25	50	-
5	ME106	Workshop Practice	AEC	2	0	0	3	0	3	-	50	-	-	50
6	HU102	Communication Skills	HMC	3	3	0	0	3	0	25	-	25	50	-
Total				21	16	1	7							

List of Departmental Elective Courses

S. No.	Elective Code	Title of Elective	Elective no.
1.	EL 305	Signals and Systems	DEC 1 and DEC 2
2.	EL 307	Computer Architecture	
3.	EL 309	Special Electrical Machines	
4.	EL 311	Renewable Energy Systems	
5.	EL 313	IC Technology	
6.	EL 315	Digital Control & State Variable Analysis	
7.	EL 317	Digital System Design	
8.	EL 319	Database Management Systems	
9.	EL 321	Algorithms Design and Analysis	
10.	EL 323	Soft Computing Techniques	
11.	EL 308	Power System Operation and Control	DEC 3 and DEC 4
12.	EL 310	Distributed Generation	
13.	EL 312	Electric Drives	
14.	EL 314	Power Electronic Applications to Power Systems	
15.	EL 316	Electrical Energy Storage Systems	
16.	EL 318	Switched Mode Power Supplies	
17.	EL 320	Microwave Engineering	
18.	EL 322	VLSI Design	
19.	EL 324	Data Communication and Computer Networks	
20.	EL 326	CMOS Analog Integrated Circuits	DEC-5
21.	EL 411	Design, Estimation & Costing of Industrial Electrical Systems	
22.	EL 413	Power System Modeling & Simulation	
23.	EL 415	Utilization of Electrical Energy & Traction	
24.	EL 417	Power System Reliability	
25.	EL 419	Active and Passive Network Synthesis	
26.	EL 421	Antenna and Wave Propagation	
27.	EL 423	HVDC Transmission	
28.	EL 425	Pulse Width Modulation for Power converters	
29.	EL 427	Advanced Analog Circuit Design	
30.	EL 429	Power Station Practices	DEC 6, DEC 7 and DEC 8
31.	EL 404	Power System Dynamics & Stability	
32.	EL 406	Distribution Systems Analysis & Control	
33.	EL 408	Restructured Power Systems	
34.	EL 410	Bio-medical Instrumentation	
35.	EL 412	Non-linear and Adaptive Control	
36.	EL 414	Operating System Design	
37.	EL 416	Grid Integration of Renewable Energy Sources	
38.	EL 418	Selected Topics in Power Electronics	
39.	EL 420	Power Quality	
40.	EL 422	Robotics and Machine Vision	
41.	EL 426	Flexible AC Transmission Systems	
42.	EL 428	Smart Grid	
43.	EL 430	Digital Image Processing	
44.	EL 432	Process Instrumentation & Control	
45.	EL 434	Filter Design	
46.	EL 436	Switchgear and Protection	
47.	EL 438	Computer Control of Processes	
48.	EL 440	Microcontroller & Embedded Systems	
49.	EL 442	SCADA & Energy Management Systems	
50.	EL 444	DSP Applications to Electromechanical Systems	
51.	EL 446	AI and Expert Systems	

Table-4 University Elective Courses

S.No.	SUBJECT CODE	SUBJECTS
1.	CO351	Enterprise & Java Programming
2.	CO353	E-commerce & ERP
3.	CO355	Cryptography & Information Security
4.	CO357	Operating System
5.	CO359	Intellectual Property Rights & Cyber Laws
6.	EC351	Mechatronics
7.	EC353	Computer Vision
8.	EC355	Embedded System
9.	EC357	Digital Image Processing
10.	EC359	VLSI Design
11.	EE351	Power Electronics Systems
12.	EE353	Electrical Machines and Power Systems
13.	EE355	Instrumentation Systems
14.	EE357	Utilization of Electrical Energy
15.	EE359	Non-conventional Energy Systems
16.	EE361	Embedded Systems
17.	EN351	Environmental Pollution & E- Waste Management
18.	EN353	Occupational Health & Safety Management
19.	EN355	GIS & Remote Sensing
20.	EP351	Physics of Engineering Materials
21.	EP353	Nuclear Security
22.	HU351	Econometrics
23.	MA351	History Culture & Excitement of Mathematics
24.	ME351	Power Plant Engineering
25.	ME353	Renewable Sources of Energy
26.	ME355	Combustion Generated Pollution
27.	ME357	Thermal System
28.	ME359	Refrigeration & Air Conditioning
29.	ME361	Industrial Engineering
30.	ME363	Product Design & Simulation
31.	ME365	Computational fluid dynamics
32.	ME367	Finite Element Methods
33.	ME369	Total Life Cycle Management
34.	ME371	Value Engineering
35.	MG351	Fundamentals of Financial Accounting and Analysis
36.	MG353	Fundamentals of Marketing
37.	MG355	Human Resource Management
38.	MG357	Knowledge and Technology Management
39.	PE351	Advance Machining Process
40.	PE 353	Supply Chain Management
41.	PE355	Work Study Design
42.	PE357	Product Design & Simulation
43.	PE359	Total Life Cycle Management
44.	PE361	Total Quality Management
45.	PT361	High Performance Polymers
46.	PT363	Separation Technology
47.	PT365	Non-Conventional Energy
48.	PT367	Polymer Waste Management
49.	PT369	Nanotechnology in Polymers
50.	PT371	Applications of Polymer Blends and Composite