





Gautam Buddha University
School of Engineering
Department of Electrical Engineering
B. Tech. Electrical Engineering (For 2018-2022 onwards batches)

B. Tech. (All) - I Semester						
S. No.	Course Code	Name of Course	L-T-P	Credits	UGC	AICTE
Theory Courses						
1	CY 101/ PH 102	Engineering Chemistry/ Engineering Physics	3-1-0	4	FC	BSC
2	MA 101	Engineering Mathematics –I	3-1-0	4	FC	BSC
3	EC 101/ EE 102	Basic Electronics Engineering/ Basic Electrical Engineering	3-1-0	4	FC	ESC
4	CS 101/ ME101	Fundamentals of Computer Programming/ Engineering Mechanics	3-1-0	4	SEC	ESC
5	BS 101	Human Values & Buddhist Ethics	2-0-0	2	AECC	HSMC
6	EN 101	English Proficiency	2-0-0	2	AECC	HSMC
Practical Courses						
6	CE 103*/ ME 102	Engineering Graphics/ Workshop Practice	1-0-2	2	SEC	ESC
7	CY 103/ PH 104	Engineering Chemistry Lab/ Engineering Physics Lab	0-0-2	1	FC	BSC
8	CS 181/ EN 151/	Computer Programming Lab/ Language Lab	0-0-2	1	SEC	ESC
9	EC 181/ EE 103	Basic Electronics Engineering Lab/ Basic Electrical Engineering Lab	0-0-2	1	FC	ESC
10	GP	General Proficiency		NC		
Total Credits				25		

B. Tech. (All) - II Semester						
S. No.	Course Code	Name of Course	L-T-P	Credits	UGC	AICTE
Theory Courses						
1	CY 101/ PH 102	Engineering Chemistry/ Engineering Physics	3-1-0	4	FC	BSC
2	MA 101	Engineering Mathematics –I	3-1-0	4	FC	BSC
3	EC 101/ EE 102	Basic Electronics Engineering/ Basic Electrical Engineering	3-1-0	4	FC	ESC
4	CS 101/ ME101	Fundamentals of Computer Programming/ Engineering Mechanics	3-1-0	4	SEC	ESC
5	ES 101	Environmental Studies	4-0-0	4	AECC	HSMC
Practical Courses						
6	CE 103*/ ME 102	Engineering Graphics/ Workshop Practice	1-0-2	2	SEC	ESC
7	CY 103/ PH 104	Engineering Chemistry Lab/ Engineering Physics Lab	0-0-2	1	FC	BSC
8	CS 181/ EN 151/	Computer Programming Lab/ Language Lab	0-0-2	1	SEC	ESC
9	EC 181/ EE 103	Basic Electronics Engineering Lab/ Basic Electrical Engineering Lab	0-0-2	1	FC	ESC
10	GP	General Proficiency		NC		
Total Credits				25		

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SEMSTER -III					
S. No.	Subject Code	Course	L-T-P	Credit	Course Type
		<u>THEORY</u>			
1.	MA-201	Engineering Mathematics-III	3-1-0	4	C
2.	EE-201	Network Theory	3-1-0	4	C
3.	EE-203	Electrical Engineering Materials & Nano Materials	3-0-0	3	C
4.	EE-205	Electrical Measurement & Measuring Instruments (EMMI)	3-1-0	4	C
5.	EE-207	Electrical Machine-I	3-1-0	4	C
6.		Any Course from ICT	3-1-0	4	E-GEI
		<u>PRACTICAL</u>			
7.	EE-211	Network Theory Lab	0-0-2	1	C
8.	EE-215	Electrical Machine Lab	0-0-2	1	C
9.	EE-213	EMMI Lab	0-0-2	1	C
10.	GP	General Proficiency	-	NC	
		Total		26	
		Total Contact Hours	29		
SEMSTER -IV					
S. No.	Subject Code	Course	L-T-P	Credit	Course Type
		<u>THEORY</u>			
1.	EE-202	Measurement and Instrumentation	3-0-0	3	CC/PCC
2.	EE-204	Electromagnetic Field Theory	3-1-0	4	CC/PCC
3.	EE-206	Signals & System	3-1-0	4	CC/PCC
4.	EE-208	Elements of Power System	3-1-0	4	CC/PCC
5.	EE-210	Electrical Machine-II	3-1-0	4	CC/PCC
6.	-	IRP & Profession Ethics	3-0-0	3	AECC/HSMS
		<u>PRACTICAL</u>			
7.	EE-214	Measurement and Instrumentation Lab	0-0-2	1	CC/PCC
8.	EE-216	Electrical Machine-II Lab	0-0-2	1	CC/PCC
9.	EE-218	Simulation Lab	0-0-2	1	SEC/LC
	-	General Proficiency		NC	
		Total Credit		25	
		Total Contact Hours		28	

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SEMSTER -V					
S. No.	Subject Code	Course	L-T-P	Credit	Course Type
		<u>THEORY</u>			
1.	EE-301	Power System Analysis	3-1-0	4	CC/PCC
2.	EE-303	Electronic Devices & Circuits	3-1-0	4	CC/PCC
3.	EE-305	Control System-I	3-1-0	4	CC/PCC
4.	EE-307	Power Electronics	3-1-0	4	CC/PCC
5.	EE-309	Digital Electronics	3-1-0	4	CC/PCC
		<u>PRACTICAL</u>			
6.	EE-311	Power System Lab	0-0-2	1	CC/PCC
7.	EE-313	Control System Lab	0-0-2	1	CC/PCC
8.	EE-315	Power Electronic Lab	0-0-2	1	CC/PCC
9.	EE-317	Digital Electronic Lab (ICT)	0-0-2	1	CC/PCC
10.	GP	General Proficiency	-	NC	
		Total		24	
		Total Contact Hours		28	
SEMSTER -VI					
S. No.	Subject Code	Course	L-T-P	Credit	Course Type
		<u>THEORY</u>			
1.	EE-302	Electric Drives	3-0-0	3	CC/PCC
2.	EE-304	Switch and Protection	3-1-0	4	CC/PCC
3.	EE-306	Control System-II	3-1-0	4	CC/PCC
4.	EE-308	Digital Signal Processing	3-1-0	4	CC/PCC
5.	EE-310	Microprocessor & Microcontrollers	3-1-0	4	CC/PCC
6.	-	Open Elective I	3-0-0	3	AECC/HSMS
		<u>PRACTICAL</u>			
7.	EE-312	Electric Drives Lab	0-0-2	1	CC/PCC
8.	EE-314	Switch and Protection Lab	0-0-2	1	CC/PCC
9.	EE-316	Microprocessor & Microcontrollers Lab	0-0-2	1	CC/PCC
10.	EE-318	Simulation Lab-II	0-0-2	1	SEC/I C
11.	GP	General Proficiency	-	NC	GP
		Total Credit		27	
		Total Contact Hours		31	

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SEMSTER -VII					
S. No.	Subject Code	Course	L-T-P	Credit	Course Type
		<u>THEORY</u>			
1.	EE-401	Engineering Optimization	3-1-0	4	SEC/PCC
2.	EE-403	Introduction to AI & Neural Networks	3-0-0	3	C
3.	--	Dept. Elective-I	3-0-0	3	C
4.	--	Open Elective-II	3-0-0	3	C
		<u>PRACTICAL</u>			
5.	EE-491	DSP Lab	0-0-2	1	CC/PCC
6.	EE-493	Industrial Training*	--	2	SEC/PW
7.	EE-495	Seminar	0-0-4	2	SEC/PW
8.	EE-497	Project-I	0-0-8	4	DP/PW
9.	GP	General Proficiency	-	NC	
		Total		22	
		Total Contact Hours	27		
SEMSTER -VIII					
S. No.	Subject Code	Course	L-T-P	Credit	Course Type
		<u>THEORY</u>			
1.	--	Organization Behavior	3-0-0	3	OE/HSME
2.	--	Dept. Elective-II	3-0-0	3	CC/PCC
3.	--	Dept. Elective-III	3-0-0	3	CC/PCC
4.	--	Open Elective-III	3-0-0	3	CC/PCC
		<u>PRACTICAL</u>			
6.	EE-498	Project-I	0-0-16	8	CC/PCC
7.	GP	General Proficiency	-	NC	
		Total Credit		20	
		Total Contact Hours		28	

TOTAL CREDITS 199

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Dept. Elective-I

- 1- EE-405- Soft Computing Techniques
- 2- EE-407 Digital Control
- 3- EE-409 HVDC & FACTS
- 4- EE-411 Power Converters & Applications
- 5- EE-413 Industrial Instrumentation & Automation
- 6- EE-415 Data Acquisition & Telemetry

Dept. Elective-II

- 1- EE-421 CAD of Electrical Apparatus
- 2- EE-423 Renewable Energy Sources
- 3- EE-425 Advance Control System
- 4- EE-427 Advance Instrumentation
- 5- EE-429 Digital Image Processing
- 6- EE-430 Power Quality
- 7- EE-400 NEMS & MEMS
- 8- EE-402 Biomechanics & Robotics

Dept. Elective-III

1. EE-404 Optimal Control Theory
2. EE-406 Wavelet Application to Engg.
3. EE-410 Smart Transducers & Sensors
4. EE-412 Special Electrical Machine
5. EE-414 Conservation of Energy & Audit
6. EE-424 Power System Operation & Control
7. EE-426 PLC & SCADA Systems
8. EE-428 Biomedical Instrumentation

Open Elective-I

- 1- Principles of Communication System
- 2- Cyber Security
- 3- Introduction to Bio-Technology

Open Elective-II

- 1- Simulation & Modeling
- 2- Fiber Optic Based Instrumentation
- 3- Industrial Management
- 4- OOPS using C++
- 5- GST

Open Elective-III

- 1- Entrepreneurship Development
- 2- JAVA Programming
- 3- Embedded System
- 4- IOT

5- IPR

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