

Gautam Buddha University, School of Engineering, Electrical Engineering Department
5 Year Integrated B.Tech.+M.Tech./MBA Programme (Electrical Engineering) Batch 2021-26 onwards

I Semester						
S. No.	Course Code	Name of Course	L-T-P	Credits	UGC	AICTE
Theory Courses						
1	CY101/ PH102	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						
7	CE103*/ ME102	Engineering Graphics/ Workshop Practice	1-0-2	2	SEC	ESC
8	CY 103/ PH 104	Engineering Chemistry Lab/ Engineering Physics Lab	0-0-2	1	FC	BSC
9	CS 181/ EN 151	Computer Programming Lab/ Language Lab	0-0-2	1	SEC	ESC
10	EC 181/ EE 104	Basic Electronics Engineering Lab/ Basic Electrical Engineering Lab	0-0-2	1	FC	ESC
11	GP	General Proficiency		NC		
Total Contact Hours/Credits			29	25		

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 102	Engineering Mathematics –II	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	CE103*/ 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 104	Basic Electronics Engineering Lab/ Basic Electrical Engineering Lab	0-0-2	1	FC	ESC
10	GP	General Proficiency		NC		
Total Contact Hours/Credits			29	25		

**This is a lab course*

SEMSTER -III					
S. No.	Subject Code	Course	L-T-P	Credit	Course Type
Theory Courses					
1	MA-201	Engineering Mathematics-III	3-1-0	4	CC/BSC
2	EE-201	Network Theory	3-1-0	4	CC/PCC
3	EE-203	Electrical Engineering Materials & Nano Materials	3-0-0	3	CC/PCC
4	EE-205	Electrical Measurement & Measuring Instruments (EMMI)	3-1-0	4	CC/PCC
5	EE-207	Electrical Machine-I	3-1-0	4	CC/PCC
6	CS-205	Data Structures and Algorithms	3-0-0	3	SEC/ESC
Practical Courses					
7	EE-211	Network Lab	0-0-2	1	CC/PCC
8	EE-213	EMMI Lab	0-0-2	1	CC/PCC
9	EE-215	Electrical Machine Lab-I	0-0-2	1	CC/PCC
10	GP	General Proficiency	-	NC	
		Total Contact Hours/Credits	29	25	

SEMSTER -IV					
S. No.	Subject Code	Course	L-T-P	Credit	Course Type
Theory Courses					
1	EE-202	Measurement and Instrumentation	3-0-0	3	CC/PCC
2	EE-204	Electronic Devices & Circuits	3-1-0	4	CC/PCC
3	EE-206	Signals & Systems	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	-	Open Elective-I	3-0-0	3	AECC/HSMS
Practical Courses					
7	EE-214	Electronic Devices & Circuits Lab	0-0-2	1	CC/PCC
8	EE-216	Electrical Machine Lab- II	0-0-2	1	CC/PCC
9	EE-218	Simulation Lab	0-0-2	1	SEC/LC
10	-	General Proficiency		NC	
		Total Contact Hours/Credit	28	25	

SEMSTER -V					
S. No.	Subject Code	Course	L-T-P	Credit	Course Type
Theory Courses					
1	EE-301	Power System Analysis	3-1-0	4	CC/PCC
2	EE-303	Electromagnetic Field Theory	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
Practical Courses					
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 Electronics Lab	0-0-2	1	CC/PCC
9	EE-317	Digital Electronic Lab	0-0-2	1	CC/PCC
10	EE-319	Industrial Training-I	-	1	SEC/PW
11	GP	General Proficiency	-	NC	
Total Contact Hours/Credits			28	25	

**Students will do industrial training of four weeks after fourth semester and evaluation will be done in fifth semester.*

SEMSTER -VI					
S. No.	Subject Code	Course	L-T-P	Credit	Course Type
Theory Courses					
1	EE-302	Electric Drives	3-1-0	4	CC/PCC
2	EE-304	Switchgear 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- II	3-0-0	3	AECC/HSMS
Practical Courses					
7	EE-312	Electric Drives Lab	0-0-2	1	CC/PCC
8	EE-314	Switchgear 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/LC
11	GP	General Proficiency	-	NC	GP
Total Contact Hours/Credit			31	27	

SEMESTER-VII					
S. No.	Subject Code	Courses	L-T-P	Credit	Course Type
Theory Courses					
1.	EE401/ EE405	Engineering Optimization/ Modeling & Simulation in Engineering	3-1-0	4	E-GE3
2.	EE403	PLC & SCADA	3-1-0	4	EGE4
3.		Dept. Elective-I	3-0-0	3	EDSE1
4.		Dept. Elective-II	3-0-0	3	EDSE2
5.		Open Elective-III	3-0-0	3	EDSE3
PRACTICALS/PROJECT					
6.	EE481	PLC & SCADA Lab	0-0-2	1	C
7.	EE483	DSP Lab	0-0-2	1	C
8.	EE485	Industrial Training-II	-	1	SEC
9.	GP	General Proficiency	-	NC	
		Total		20	
		Total Contact Hours		26	

**Students will do industrial training of six weeks after sixth semester and evaluation will be done in seventh semester.*

SUMMER SEMESTER (AFTER VIII SEMESTER)					Course Type
S. No.	Subject Code	Courses	L-T-P	Credit	
1.	EE600	Summer Project/Industrial Training	-	2	EDP-1
		Total		2	
		Total Contact Hours			

SEMESTER-VIII (Specialization in M. Tech. PS/PED/I&C)					Course Type
S. No.	Subject Code	Courses	L-T-P	Credit	
		Total		23	
		M. Tech. II semester curriculum			

SEMESTER-IX (Specialization in M. Tech. PS/PED/I&C)					Course Type
S. No.	Subject Code	Courses	L-T-P	Credit	
		Total		22	
		M. Tech. III semester curriculum			

SEMESTER-X (Specialization in M. Tech. PS/PED/I&C)					Course Type
S. No.	Subject Code	Courses	L-T-P	Credit	
		Total		22	
		M. Tech. IV semester curriculum			

Open Elective: Course offered from other school

List of Electives for Integrated B.Tech.+M.Tech./MBA (EE)

Elective-I, II & III

1. EE501: Power Electronics Devices and Magnetics (Credits:3-0-0)
2. EE503: Modeling of Electrical Apparatus (Credits:3-0-0)
3. EE505: DC Power Converters (Credits:3-0-0)
4. EE585: Power Converters and its Applications (Credits:3-0-0)
5. EE437: Utilization of Electrical Energy and Traction (Credits:3-0-0)
6. EE581: Restructured Power System (Credits:3-0-0)
7. EE575: Renewable Energy Sources (Credits:3-0-0)
8. EE573: Power System Transients (Credits:3-0-0)
9. EE453: High Voltage Engineering (Credits:3-0-0)
10. EE577: Electric Power Generation System (Credits:3-0-0)
11. EE461: Project Engineering & Management (Credits:3-0-0)
12. EE531: Advance Instrumentation (Credits:3-0-0)
13. EE533: Industrial Process Control (Credits:3-0-0)
14. EE535: Optimal Control Theory (Credits:3-0-0)
15. EE543: Embedded System (Credits:3-0-0)
16. EE455: Computer Application to Electrical Engineering (Credits:3-0-0)
17. EE457: Research Methodology for Electrical Engineering (Credits:4-0-0)
18. M. Tech. (Power System) Electives; M. Tech. (PED) Electives; M. Tech. (I&C) Electives Courses.