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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

COURSE STRUCTURE

B.Tech. (ELECTRONICS & COMMUNICATION ENGINEERING)
Session: 2025-2029

GAUTAM BUDDHA UNIVERSITY
GAUTAM BUDH NAGAR, GREATER NOIDA

SEMESTER I

No.	Course Code	Course Name	L	T	P	Credits	Types
1	MA101	Engineering Mathematics-I	3	1	0	4	C1
2	PH102	Engineering Physics	3	1	0	4	C2
3	EE102	Basic Electrical Engineering	3	1	0	4	C3
4	ME101	Engineering Mechanics	3	1	0	4	SCE1
5	ES101	Environmental Science	2	0	0	2	OE1
7	PH104	Engineering Physics Lab	0	0	2	1	P1
8	EE104	Basic Electrical Engineering Lab	0	0	2	1	P2
9	EN151	Language Lab	0	0	2	1	P3
10	ME102	Workshop Practices	1	0	2	2	P4
11	GP	General Proficiency	Non Credit				GP
		Total Hours and Credits	**15**	**4**	**8**	**23**	

SEMESTER II

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	MA102	Engineering Mathematics-II	3	1	0	4	C6
2	CS102	Computer Organisation and Architecture	3	1	0	4	C7
3	CS101	Fundamentals of Computer Programming	3	1	0	4	C8
4	EC101	Basic Electronics Engineering	3	1	0	4	GE1
5	CS105	Introduction of Artificial Intelligence	2	0	0	2	E1
	CE103	Engineering Graphics	0	0	2	2	P5
7	CS 183	Computer Organisation and Architecture Lab	0	0	2	1	P6
8	CS181	Computer Programming Lab	0	0	2	1	P7
9	EC181	Basic Electronics Engineering Lab	0	0	2	1	P8
10	GP	General Proficiency	Non Credit				GP
		Total Hours and Credits	**14**	**4**	**8**	**23**	

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SEMESTER III

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	MA201	Engineering Mathematics-III	3	1	0	4	C10
2	EC221	Fundamental of Digital Electronic Circuits	3	1	0	4	C11
3	EC223	Network Analysis	3	1	0	4	C12
4	EC225	Introduction to Signal and Systems	3	1	0	4	C13
5	EC227	Analog Electronic Circuits	3	1	0	4	C14
6	EC271	Analog Electronic Circuits Lab	0	0	2	1	P9
7	EC273	Digital Electronics Circuits Lab	0	0	2	1	P10
8	EC275	Network Analysis Lab	0	0	2	1	P11
9	EC277	PCB Design Lab	0	0	2	1	P12
10	GP	General Proficiency	Non Credit				GP
		Total Hours and Credits	**15**	**5**	**8**	**24**	

SEMESTER IV

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	EC222	Analog Communication	3	1	0	4	C15
2	EC224	Linear Integrated Circuits	3	1	0	4	C16
3	EC226	Microprocessors and Microcontrollers	3	1	0	4	C17
4	EC228	Electromagnetic Field Theory	3	1	0	4	C18
5	IT207	Data Structures	3	1	0	4	C19
6	EC272	Communication Lab	0	0	2	1	P13
7	EC274	Microprocessor and Microcontroller Lab	0	0	2	1	P14
8	EC276	Analog Integrated Circuits Lab	0	0	2	1	P15
9	IT285	Data Structures Lab	0	0	2	1	P16
10	GP	General Proficiency	Non Credit				GP
		Total Hours and Credits	**15**	**5**	**8**	**24**	

SEMESTER V

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	EC321	Digital Logic Design	3	1	0	4	C20
2	EC323	Digital Communication	3	1	0	4	C21
3	EC325	Antenna & Wave Propagation	3	1	0	4	C22
4	EC327	Control System	3	1	0	4	C23
5		Elective 1	3	0	0	3	E1
6	EC371	Control System Lab	0	0	2	1	P17
7	EC373	Digital Communication Lab	0	0	2	1	P18
8	EC375	Digital Logic Design Lab	0	0	3	2	P19
9	EC377	Antenna & Wave Propagation Lab	0	0	2	1	P20
10	GP	General Proficiency	Non Credit				GP
		Total Hours and Credits	**15**	**4**	**9**	**24**	

SEMESTER VI

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	EC320	Microwave and Radar Engineering	3	1	0	4	C24
2	EC322	Digital Signal Processing and Applications	3	1	0	4	C25
3	EC324	Fundamentals of Microelectronics	3	1	0	4	C26
4	EC326	Data Communication Network	3	0	0	3	C27
5	EC328	IC Fabrication Technology	3	0	0	3	C28
6		Elective 2	3	0	0	3	E2
7	EC372	Microwave Engineering Lab	0	0	2	1	P21
8	EC374	Digital Signal Processing and Applications Lab	0	0	2	1	P22
9	EC376	Simulation Lab	0	0	2	1	P23
10	GP	General Proficiency	Non Credit				GP
		Total Hours and Credits	**18**	**3**	**6**	**24**	

Industrial Training after 6 semester during summer break. It is mandatory and will be of minimum 4 weeks for each student. It will be evaluated at the end of 7th semester.

SEMESTER VII

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	EC421	Wireless Communication	3	0	0	3	P24
2	EC423	Fiber Optic Communication	3	0	0	3	P25
3	EC425	VLSI Design	3	0	0	3	P26
4		Elective 3	3	0	0	3	E3
5		Elective 4	3	0	0	3	E4
6	EC471	Fiber Optic Communication Lab	0	0	2	1	P24
7	EC473	VLSI Design Lab	0	0	2	1	P25
8	EC491*	Industrial Training	0	0	0	3	MP1
9	EC493	Minor Project	0	0	10	5	P27
10	GP	General Proficiency	Non Credit				GP
		Total Hours and Credits	**15**	**0**	**14**	**25**	

* Industrial Training after 6 semester during summer break. It is mandatory and will be of minimum 4 weeks for each student. It will be evaluated at the end of 7th semester.

SEMESTER VIII

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	EC490	Seminar#	0	0	3	2	S1
2	EC492	Internship**	0	0	30	15	I2
3	EC494	Major Project	0	0	16	8	MP2
4	GP	General Proficiency	Non Credit				GP
		Total Hours and Credits	**0**	**0**	**49**	**25**	

 # In the seminar, students needs to study and present any latest topic related to their specilization. It will be evaluated at the end of 8th Semester.

**** The internshop will be of atleast four months in any industry. Its evaluation will be done by the end of the 8th semester by the concerned department.**

GRAND TOTAL OF CREDITS = 192