

B.Tech in ECE COURSE STRUCTURE - 2020-24 Batch**I SEMESTER - CHEMISTRY CYCLE**

Sl. No	Course No	Course Name	Hours			Total Marks	Credits			Total Credits
			L	T	P		L	T	P	
1	MA131	Mathematics - II	3	0	0	100	3	0	0	3
2	CH132P	Chemistry	3	0	2	100	3	0	1	4
3	EC133P	Basic Electronics	3	0	2	100	3	0	1	4
4	CS134P	Computer Programming	3	0	2	100	3	0	1	4
5	ME135	Basic Mechanical Engineering and Nanoscience	3	0	0	100	3	0	0	3
6	TE136P	Technical English	1	0	2	100	1	0	1	2
7	ME151	Workshop Practice Lab	0	0	2	50	0	0	1	1
8	HE171	Holistic Education-II	1	0	0	---	1	0	0	1
		Total				650				22

II SEMESTER - PHYSICS CYCLE

Sl. No	Course No	Course Name	Hours			Total Marks	Credits			Total Credits
			L	T	P		L	T	P	
1	MA231	Mathematics - II	3	0	0	100	3	0	0	3
2	PH232P	Physics	3	0	2	100	3	0	1	4
3	EE233P	Basic Electrical Engineering	3	0	2	100	3	0	1	4
4	CE234P	Basics of Civil Engineering & Engineering Mechanics	3	0	2	100	3	0	1	4
5	EG235P	Engineering Graphics	2	0	2	100	2	0	1	3
6	BS 236	Biology for Engineers	2	0	0	100	2	0	0	2
7	HE271	Holistic Education-II	1	0	0	---	1	0	0	1

CHRIST (Deemed to be University)

Sl. No	Course No	Course Name	Hours			Total Marks	Credits			Total Credits
			L	T	P		L	T	P	
		Total				600				21

III SEMESTER

Sl. No	Course No	Course Name	Hours			Total Marks	Credits			Total Credits
			L	T	P		L	T	P	
1	MA331	Mathematics-III	3	0	0	100	3	0	0	3
2	EC332P	Electronic Devices & Circuits	3	0	2	100	3	0	1	4
3	EC333P	Digital Electronics	3	0	2	100	3	0	1	4
4	EC334	Electromagnetic Fields	3	0	0	100	3	0	0	3
5	EC335	Network Analysis & Synthesis	3	0	0	100	2	0	0	3
6		Cyber Security	2	0	0	---	0	0	0	0
7	HE371	Holistic Education-III	1	0	0		1	0	0	1
		Total				500				18

IV SEMESTER

Sl. No	Course No	Course Name	Hours			Total Marks	Credits			Total Credits
			L	T	P		L	T	P	
1	EC431P	Analog Electronics	3	0	2	100	3	0	0	3
2	EC432	Antennas & Wave Propagation	3	0	0	100	3	0	1	4
3	EC433	Signals & Systems	3	0	0	100	3	0	0	3
4	EC434	Computer Organization & Processors	3	0	0	100	3	0	0	3
5	EC451	Electronic Measurement Lab	0	0	2	50	0	0	1	1
6	HS435	Professional Ethics	2	0	0	100	2	0	0	2
7	MA436	Probability & Queuing Theory	3	0	0	100	3	0	0	3
8	BS451	Engineering Biology Laboratory	0	0	2	50	0	0	2	1
9		Environmental Science	2	0	0	----				

Sl. No	Course No	Course Name	Hours			Total Marks	Credits			Total Credits
			L	T	P		L	T	P	
10	HE471	Holistic Education-IV	1	0	0	----	1	0	0	1
		Total				700				21

V SEMESTER

Sl. No	Course No	Course Name	Hours			Total Marks	Credits			Total Credits
			L	T	P		L	T	P	
1	EC531P	Digital Signal Processing	3	0	2	100	3	0	1	4
2	EC532P	Microcontroller Based System Design	3	0	2	100	3	0	1	4
3	EC533	Control Systems	3	0	0	100	3	0	1	3
4	EC534	Program Elective - 1	3	0	0	100	3	0	0	3
5		Open Elective - 1	3	0	0	100	3	0	0	3
6	HS536	Project Management & Finance	3	0	0	100	3	0	0	3
7		Constitution of India	0	0	0	---	0	0	0	0
		Total				600				20

VI SEMESTER

Sl. No	Course No	Course Name	Hours			Total Marks	Credits			Total Credits
			L	T	P		L	T	P	
1	EC631P	Analog & Digital Communication	3	0	2	100	3	0	1	4
2	EC632P	VLSI Design	3	0	2	100	3	0	1	4

Sl. No	Course No	Course Name	Hours			Total Marks	Credits			Total Credits
			L	T	P		L	T	P	
3	EC633P	Computer Networks	3	0	2	100	3	0	1	4
4	EC634	Program Elective - 2	3	0	0	100	3	0	0	3
5		Open Elective - 2 (GE)	2	0	0	100	2	0	0	2
6	EC671	Mini Project/Electronic Design workshop	0	0	4	50	0	0	2	2
		Total				550				19

VII SEMESTER

Sl. No	Course No	Course Name	Hours			Total Marks	Credits			Total Credits
			L	T	P		L	T	P	
1	EC731	Program Elective - 3	3	0	0	100	3	0	1	3
2	EC732	Program Elective - 4	3	0	0	100	3	0	1	3
3	EC733	Program Elective - 5	3	0	0	100	3	0	1	3
4	EC734	Program Elective - 6	3	0	0	100	3	0	0	3
5		Open Elective - 3	3	0	0	100	3	0	0	3
6	EC737	Service Learning	1	0	2	---	1	0	1	2
7	EC771	Internship	0	0	4	50	0	0	2	2
						550				19

VIII SEMESTER

Sl. No	Course No	Course Name	Hours			Total Marks	Credits			Total Credits
			L	T	P		L	T	P	
1	EC831	Program Elective - 7	3	0	0	100	3	0	0	3
2	EC871	Project Work	0	0	24	300	0	0	12	12
						400				15

SI No	Program Elective - I & V(Electromagnetic Fields)
1	Transmission Lines and Waveguides
2	Microwave Engineering
3	Electromagnetic Interference and Compatibility
4	Microstrip Antennas
5	Computational Electromagnetics
6	Reliability Of Electronics Systems
7	Telecommunication System Modeling and Simulation
8	Satellite Communication
9	Radar and Navigational Aids
10	Optical Fiber Communication

SI No	Program Elective - II (Devices & Circuits)
1	Solid State Electronic Devices
2	Advanced Digital System Design
3	Medical Electronics
4	Optoelectronic devices

SI No	Program Elective - III & VI (VLSI & Embedded Systems)
1	Advanced Microprocessor
2	Embedded System
3	Advanced Electronic system design
4	Computer Hardware and Interfacing
5	ARM System Architecture
6	VLSI Subsystems
7	ASIC Design
8	Analog VLSI Design
9	Robotic System Design

Sl No	Program Elective - IV & VII (Signal Processing & Recent Trends)
1	Biomedical Signal Processing
2	Advanced Digital Signal Processing
3	Statistical signal Processing
4	Speech Processing
5	Digital Image Processing
6	Internet & Java
7	Artificial Intelligence
8	Wireless Sensor Networks & IoT
9	Computer Protocol Engineering
10	High Speed Networks

OPEN ELECTIVES OFFERED BY DEPARTMENT OF ECE

Sl No	Course Name
1	Sensors and Transducers
2	Industrial Instrumentation
3	Automotive Electronics
4	Telecommunication Infrastructure & Management
5	Consumer Electronics
6	Microwave for Engineers
7	Fundamentals of Signal Processing
8	Fundamentals of Image Processing
9	NEMS and MEMS for Engineers
10	Embedded Boards for IoT Applications
11	System Design & Measurement using LabVIEW
12	Basics of VLSI for Engineers
13	Computerized Control System

B.Tech in ECE with Honours in Nano Electronics

Sl. No.	Sub Name	L (Hrs)	T (Hrs)	P (Hrs)	Hrs/Week	Credits
1	Solid state electronic devices	4	0	0	4	4
2	Semiconductor Device Modeling	3	0	2	5	4
3	MEMS	4	0	0	4	4
4	Photonic Devices	4	0	0	4	4
5	Quantum Transport in Nano FETs	3	0	2	2	4

B.Tech in ECE with Honours in Intelligent Systems

Sl. No.	Sub Name	L (Hrs)	T (Hrs)	P (Hrs)	Hrs/Week	Credits
1	Mathematics for Intelligent System	3	1	0	4	4
2	Neuro Fuzzy System	3	1	0	4	4
3	Introduction Artificial Intelligence and Machine Learning	3	0	2	5	4
4	Pattern recognition and Machine Learning	3	1	0	4	4
5	Real-time Computer Vision with openCV	3	0	2	5	4

B.Tech in ECE with Honours in IC Design

Sl. No.	Sub Name	L (Hrs)	T (Hrs)	P (Hrs)	Hrs/Week	Credits
1	SoC Design for Embedded Systems and IoT	3	1	0	4	4
2	CMOS Mixed Signal Design	3	0	2	5	4
3	Testing of VLSI Circuits	3	1	0	4	4
4	Hardware Software Co-Design	3	0	2	5	4
5	Low Power VLSI Design	3	1	0	4	4

B.Tech in ECE with Honours in Advanced Communication Technology

Sl. No.	Sub Name	L (Hrs)	T (Hrs)	P (Hrs)	Hrs/Week	Credits
1	Modern Communication Systems	3	1	0	4	4
2	Modern Antenna Design and Measurement	3	1	0	4	4
3	Application Based Antenna Design	3	1	0	4	4
4	RF and Microwave Components	3	1	0	4	4
5	Satellite Technology	3	1	0	4	4