

COURSE STRUCTURE

COURSE STRUCTURE FOR BACHELOR OF TECHNOLOGY IN ELECTRONICS & COMMUNICATION ENGINEERING

Deptt.	Semester/ Electives	Course Code	Course Title	L	T	P	Credits	Total Credit/ Sem
B. Tech. (ECE) SEMESTER - I								
ECE	1	HS 1102	Organizational Behaviour and Industrial Psychology	3	0	0	3	
ECE	1	MA 1101	Mathematics - I	3	1	0	4	
ECE	1	CH 1101	Engineering Chemistry	3	0	3	5	
ECE	1	CE 1101	Engineering Mechanics	3	0	3	5	
ECE	1	ME 1101	Elements of Mechanical Engineering	3	0	3	5	
ECE	1	ME 1102	Workshop	2	0	3	4	
ECE	1	GE 1101	EAA I - NSS					26.0
B. Tech. (ECE) SEMESTER - II								
ECE	2	HS 1201	Communicative English	3	0	0	3	
ECE	2	MA 1202	Mathematics - II	3	1	0	4	
ECE	2	PH 1201	Physics	3	0	3	5	
ECE	2	EE 1201	Basic Electrical Engineering.	3	0	3	5	
ECE	2	IT 1201	Fundamentals of Information Technology	3	0	0	5	
ECE	2	ME 1202	Engineering Graphics	2	0	3	4	
ECE	2	GE 1202	EAA II -NSS					26.0
B. Tech. (ECE) SEMESTER - III								
ECE	3	MA 1303	Mathematics - III	3	1	0	4	
ECE	3	PH 1302	Electrical and Electronic Material	3	0	3	5	
ECE	3	EC 1302	Basic Electronics	3	0	3	5	
ECE	3	HS 1304	Personnel Management and Industrial Relation	3	0	0	3	
ECE	3	EC 1301	Solid State Physics and Devices	3	1	0	4	
ECE	3	CE 1302	Environmental Science	3	0	3	5	
ECE	3	GE 1303	EAA III - NSS					26.0
B. Tech. (ECE) SEMESTER - IV								
ECE	4	MA 1404	Numerical Methods and Computational Technique	3	0	3	5	
ECE	4	EE 1402	Electrical Machine - I	3	0	3	5	
ECE	4	HS 1403	Industrial Economics and Accountancy	3	0	0	3	
ECE	4	IT 1414	Software Engineering	3	0	0	3	
ECE	4	CS 1401	Object Oriented Programming	3	0	3	5	
ECE	4	EC 1403	Digital Electronics	3	0	3	5	
ECE	4	GE 1404	EAA IV - NSS					26.0
B. Tech. (ECE) SEMESTER - V								

ECE	5	EE 1512	Microprocessor and its Applications	3	0	3	5	
ECE	5	IT 1505	Web Technology	3	0	3	5	
ECE	5	EC 1505	Analog Electronics	3	0	3	5	
ECE	5	EC 15xx	Elective I	3	1	0	4	
ECE	5	EE 1508	Electrical Instruments and Measurements	3	0	3	5	
ECE	5	EC 1504	Introduction to Communication Systems	3	0	3	5	29.0

B. Tech. (ECE) SEMESTER - VI

ECE	6	EC 1607	Optical Fiber Communication	3	1	0	4	
ECE	6	EC1608	Intelligent Instruments	3	0	3	5	
ECE	6	EE 1606	Network Theory	3	0	3	5	
ECE	6	EC 16xx	Elective II	3	1	0	4	
ECE	6	EE 1607	Electromagnetic Field Theory	3	1	0	4	
ECE	6	EE 1611	Signals and Systems	3	1	0	4	
ECE	6	EC 1610	Comprehensive Viva Voce - I				2	28.0

B. Tech. (ECE) SEMESTER - VII

ECE	7	EE 1710	Power Electronics	3	0	3	5	
ECE	7	EC 1711	Advance Electromagnetic Theory	3	0	3	5	
ECE	7	EC17xx	Elective III	3	1	0	4	
ECE	7	EC 1713	Digital Signal Processing	3	0	3	5	
ECE	7	EC 1714	Project - I	0	0	9	6	
ECE	7	EC 1715	Industrial Training				2	27.0

B. Tech. (ECE) SEMESTER - VIII

ECE	8	EC 1817	Microwave Engineering	3	0	3	5	
ECE	8	IT 1833	Biometric Security	3	1	0	4	
ECE	8	CS 1814	Computer Networks	3	0	0	3	
ECE	8	EE 1813	Linear Control Theory	3	0	3	5	
ECE	8	EC1817	Elective IV.	3	1	0	4	
ECE	8	EC1818	Project - II	0	0	6	4	
ECE	8	EC1819	Comprehensive Viva Voce - II				2	27.0

B. Tech. (ECE) ELECTIVE SUBJECTS:

ECE	EL-1	EC 1561	Micro Electronics- IC Design and Fabrication	3	1	0	4	
ECE	EL-1	EC 1562	Digital Signal Processors	3	0	3	5	
ECE	EL-1	EC 1563	Bio-Medical Sensors and Transducers	3	1	0	4	
ECE	EL-1	EC 1564	TV Engineering	3	1	0	4	
ECE	EL-1	EC 1565	Microcontrollers	3	1	0	4	
ECE	EL-1	EC 1581	Cryptograpy and Spread Spectrum	3	1	0	4	
ECE	EL-2	EC 1666	Digital System Design	3	0	3	5	
ECE	EL-2	EC 1667	Digital Image Processing	3	0	3	5	
ECE	EL-2	EC 1668	Biomedical Instrumentation and Imaging	3	1	0	4	
ECE	EL-2	EC 1669	Radio Astronomy	3	1	0	4	
ECE	EL-2	EC 1670	Embedded Systems Design	3	1	0	4	
ECE	EL-2	IT 1661	Network Security	3	0	0	3	
ECE	EL-3	EC 1771	VLSI - Design	3	1	0	4	
ECE	EL-3	EC 1772	Algorithm Development	3	1	0	4	

ECE	EL-3	EC 1773	Biomedical Systems and Its applications	3	1	0	4	
ECE	EL-3	EC 1774	Digital Communication and Telecommunication Management	3	1	0	4	
ECE	EL-3	EC 1775	Embedded Systems I (non-real time systems)	3	1	0	4	
ECE	EL-3	IT I709	Information Security	3	0	0	3	
ECE	EL-4	EC 1876	IC Architecture and Fabrication	3	1	0	4	
ECE	EL-4	CS 1842	Speech Processing	3	0	0	3	
ECE	EL-4	EC 1878	Nano Technology and its Applications	3	1	0	4	
ECE	EL-4	EC 1879	Fiber Optics and Networking Technology	3	1	0	4	
ECE	EL-4	EC 1880	Embedded Systems II (real time systems)	3	1	0	4	
ECE	EL-4	EC 1884	Mobile Computing	3	1	0	4	

Course Structure under Transitory Regulation for B. Tech. in Electronics & Communication Engineering

1. For students who admitted in session 2006 – 07, have passed 1st year of B. Sc. Engineering in annual system from Patna University and will be registered in 3rd & 4th semester in subsequent session, the course structure will be the same as regular session. They will be awarded B. Tech. Degree under semester system.
2. For students admitted in session 2005 – 06, who have passed 2nd year of B. Sc. Engineering in annual system from Patna University and will be registered in 5th & 6th semester in the subsequent session, the course structure 5th, 6th, 7th & 8th semesters will be the same as regular session. They will be awarded B. Tech. Degree under semester system.
3. For students admitted in session 2004 – 05, who have passed 3rd year of B. Sc. Engineering in annual system from Patna University and will be registered in 7th & 8th semester in the subsequent session, the course structure 7th & 8th semesters will be the same as regular session. They will be awarded B. Tech. Degree under semester system.