

STUDY & EVALUATION SCHEME
B.TECH: ELECTRONIC & COMMUNICATION ENGINEERING
I YEAR: I SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	C
THEORY						
1	BPH1701/ BCY1701	Physics/Chemistry	3	1	3	5.5
2	BMA1001	Mathematics	3	1	0	4
3	BEE1701/ BCS1701	Basic Electrical Engineering/Programming for solving Problems	3	1	2	5
4	BME1701/BME1702	Engineering Graphics and Design/Working Practice	1	0	4	3
5	XESX601/BHU1701	Environmental Science*/English	2/2	0/0	0/2	0/3
TOTAL			12/12	3/3	9/11	17.5/20.5

* - Mandatory Non-Credit Course

L - Lecture

T - Tutorial

P - Practical

C - Credit

STUDY & EVALUATION SCHEME
B.TECH: ELECTRONIC & COMMUNICATION ENGINEERING
I YEAR: II SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	C
THEORY						
1	BCY2701/BPH2701	Chemistry /Physics	3	1	3	5.5
	BMA2001	Mathematics	3	1	0	4
2	BCS2701/ BEE2701	Programming for solving Problems /Basic Electrical Engineering	3	1	2	5
3	BME2702/BME2701	Working Practice /Engineering Graphics and Design	1	0	4	3
4	BHU2701/XESX601	English /Environmental Science*	2/2	0/0	0/2	0/3
TOTAL			12/12	3/3	11/9	20.5/17.5

- * - Mandatory Non-Credit Course
L - Lecture
T - Tutorial
P - Practical
C - Credit

STUDY & EVALUATION SCHEME
B.TECH: ELECTRONIC & COMMUNICATION ENGINEERING
II YEAR: III SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
THEORY									
1	BEC3013	Electronics Devices	3	0	0	40	60	100	3
2	BEC3014	Digital System Design	3	1	0	40	60	100	4
3	BEC3015	Network Theory	3	1	0	40	60	100	4
4	BEC3001	Signals and Systems	3	1	0	40	60	100	4
5	BMA3010	Math's-III	3	1	0	40	60	100	4
6	--	OE-1	3	0	0	40	60	100	3
PRACTICAL/TRAINING/PROJECT									
7	BEC3511	Electronics Devices Lab	0	0	2	80	20	100	1
8	BEC3512	Digital System Design Lab	0	0	2	80	20	100	1
TOTAL			18	4	4	400	280	800	24
9	BEC3701-VI	*Basics of LabVIEW Programming	1	0	4	80	20	100	3

L - Lecture
T - Tutorial
P - Practical
CIE - Continuous Internal Evaluation
ESE-End Semester Exam
C – Credit

SPECIALIZATION STREAMS-

*Virtual Instrumentation-VI

STUDY & EVALUATION SCHEME
B.TECH: ELECTRONIC & COMMUNICATION ENGINEERING
II YEAR: IV SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
THEORY									
1	BEC4014	Electromagnetic Waves	3	1	0	40	60	100	4
2	BEC4015	Computer Architecture	3	0	0	40	60	100	3
3	BMA4011	Probability Theory and Stochastic Processes	3	0	0	40	60	100	3
4	BEC4023	Biology	2	0	0	40	60	100	2
5	BME4005	Engineering Mechanics	3	1	0	40	60	100	4
6	BSS4001	Soft Skills and Interpersonal Communication	2	0	0	100	0	100	2
7	XHUX602	Essence of Indian Traditional Knowledge	2	0	0	Satisfactory/ Unsatisfactory			2
PRACTICAL/TRAINING/PROJECT									
8	BEC4512	Electromagnetic Waves Lab	0	0	2	80	20	100	1
9	BEC4513	Electronic Measurement Lab	0	0	2	80	20	100	1
10	BEC4514	Mini Project/ Electronic Design Workshop	0	0	4	80	20	100	2
TOTAL			18	2	8	540	360	900	22
11	BEC4701-VI	* Virtual Implementation of Digital Circuits	1	0	4	80	20	100	3
	BEC4701-SP	**Basics of MAT/SCI Lab Programming	1	0	4	80	20	100	3
	BEC4001-ITC	***Information Theory	3	0	0	40	60	100	3

L - Lecture
T - Tutorial
P - Practical
CIE - Continuous Internal Evaluation
ESE-End Semester Exam
C – Credit

SPECIALIZATION STREAMS-

*Virtual Instrumentation-VI
**Signal Processing-SP
*** Information Theory and Coding-ITC

STUDY & EVALUATION SCHEME
B.TECH: ELECTRONIC & COMMUNICATION ENGINEERING
III YEAR: V SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
THEORY									
1	BEC5012	Analog and Digital Communication	3	0	0	40	60	100	3
2	BEC5013	Analog Circuits	3	0	0	40	60	100	3
3	BEC5014	Microcontrollers	3	0	0	40	60	100	3
4	BEC5004	Control Systems	3	1	0	40	60	100	4
5	--	DE-1	3	0	0	40	60	100	3
6	--	OE-2	3	0	0	40	60	100	3
7	XLAX6001	Constitutions of India	2	0	0	Satisfactory/ Unsatisfactory			2
PRACTICAL/TRAINING/PROJECT									
8	BEC5511	Analog and Digital Communication Lab	0	0	2	80	20	100	1
9	BEC5512	Analog Circuits Lab	0	0	2	80	20	100	1
10	BEC5513	Microcontrollers Lab	0	0	2	80	20	100	1
11	BAP5501	Aptitude and Reasoning Online Test	0	0	2	0	0	0	0
TOTAL			20	1	8	580	420	1000	22
12	BEC5701-VI	* Virtual Implementation of Analog Circuits	1	0	4	80	20	100	3
	BEC5701-SP	**Transformation Techniques	1	0	4	80	20	100	3
	BEC5001-ITC	***Error Detection and Correction Codes	3	0	0	40	60	100	3
	BEC5001-MD	****Microwaves Antennas	3	1	0	40	60	100	4

L - Lecture

T – Tutorial

P – Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C – Credit

SPECIALIZATION STREAMS-

*Virtual Instrumentation-VI

**Signal Processing-SP

*** Information Theory and Coding-ITC

****Microwaves Devices-MD

STUDY & EVALUATION SCHEME
B.TECH: ELECTRONIC & COMMUNICATION ENGINEERING
III YEAR: VI SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
THEORY									
1	BEC6009	Digital Signal Processing	3	1	0	40	60	100	4
2	BCS6013	Computer Network	3	0	0	40	60	100	3
3	--	DE-2	3	0	0	40	60	100	3
4	--	OE-3	3	0	0	40	60	100	3
5	--	OE-4	3	0	0	40	60	100	3
PRACTICAL/TRAINING/PROJECT									
6	BEC6510	Digital Signal Processing Lab	0	0	2	80	20	100	1
7	BCS6514	Computer Network Lab	0	0	2	80	20	100	1
8	BEC6504	Seminar	0	0	2	80	20	100	1
9	BAP6501	Aptitude and Reasoning Online Test	0	0	2	0	0	0	0
10	XECX601	Industrial Visit	0	0	0	Satisfactory/ Unsatisfactory			0
TOTAL			15	1	8	560	340	900	19
11	BEC6701-VI	* Virtual Implementation of Hardware Electronic Devices	2	0	4	80	20	100	4
	BEC6701-SP	**Image Processing	2	0	6	80	20	100	5
	BEC6001-ITC	***Channel Coding Schemes	3	1	0	40	60	100	4
	BEC6001-MD	****Microwaves Theory and Techniques	4	1	0	40	60	100	5

L - Lecture
T – Tutorial
P – Practical
CIE - Continuous Internal Evaluation
ESE-End Semester Exam
C – Credit

SPECIALIZATION STREAMS

*Virtual Instrumentation-VI
**Signal Processing-SP
*** Information Theory and Coding-ITC
****Microwaves Devices-MD

STUDY & EVALUATION SCHEME
B.TECH: ELECTRONIC & COMMUNICATION ENGINEERING
IV YEAR: VII SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
THEORY									
1	--	DE-3	3	0	0	40	60	100	3
2	--	DE-4	3	0	0	40	60	100	3
3	--	DE-5	3	0	0	40	60	100	3
4	--	OE-5	3	0	0	40	60	100	3
PRACTICAL/TRAINING/PROJECT									
5	BEC7503	Summer Training	0	0	2	100	0	100	1
6	BEC7506	Project-I	0	0	8	100	0	100	4
TOTAL			12	0	10	360	240	600	17
7	BEC7701-VI	* Virtual Implementation of Signal Processing	1	0	4	80	20	100	3
	BEC7701-SP	**Digital Filters	2	0	6	80	20	100	5
	BEC7701-ITC	***LabVIEW Programming Concepts	1	0	3	80	20	100	2.5
	BEC7702-ITC	*** Virtual Implementation of Channel Coding Schemes	1	0	3	80	20	100	2.5
	BEC7001-MD	****Mobile and Wireless Communication	4	1	0	40	60	100	5

L - Lecture
T - Tutorial
P - Practical
CIE - Continuous Internal Evaluation
ESE-End Semester Exam
C – Credit

SPECIALIZATION STREAMS-

*Virtual Instrumentation-VI
**Signal Processing-SP
*** Information Theory and Coding-ITC
****Microwaves Devices-MD

STUDY & EVALUATION SCHEME
B.TECH: ELECTRONIC & COMMUNICATION ENGINEERING
IV YEAR: VIII SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
THEORY									
1	--	DE-6	3	0	0	40	60	100	3
2	--	DE-7	3	0	0	40	60	100	3
3	--	OE-6	3	0	0	40	60	100	3
4	--	OE-7	3	0	0	40	60	100	3
PRACTICAL/TRAINING/PROJECT									
5	BEC8503	Project-II	0	0	18	80	20	100	9
TOTAL			12	0	18	240	260	500	21
6	BEC8701-VI	* Virtual Implementation of Embedded System/ Information Theory and Coding	2	0	4	80	20	100	4
	BEC8701-SP	**Biomedical Signal/ Image Processing	2	0	4	80	20	100	4
	BEC8701-ITC	***Application of Channel Coding Schemes in Wireless Communication	2	0	6	80	20	100	5
	BEC8701-MD	****Study and Simulation of Microwave Devices	3	0	6	80	20	100	6

L - Lecture
T - Tutorial
P - Practical
CIE - Continuous Internal Evaluation
ESE-End Semester Exam
C – Credit

SPECIALIZATION STREAMS-

*Virtual Instrumentation-VI
**Signal Processing-SP
*** Information Theory and Coding-ITC
****Microwaves Devices-MD

STUDY & EVALUATION SCHEME
B.TECH: ELECTRONIC & COMMUNICATION ENGINEERING

LIST OF ELECTIVES

LIST OF DEPARTMENT ELECTIVES

	SUBJECT CODE	SUBJECT NAME	SEMESTER
Department Elective-I	BEC5001-DE1	Antennas and Propagation	V
	BEC5002-DE1	Bio-Medical Electronics	V
	BEC5003-DE1	MOOC: Digital Switching - I	V
Department Elective-II	BEC6004-DE2	MOOC: Microwave Theory and Techniques	VI
	BEC6001-DE2	Embedded systems	VI
	BEC6002-DE2	Error correcting codes	VI
	BEC6003-DE2	Advanced Semiconductor Devices	VI
Department Elective-III	BEC 7001-DE3	Fiber Optic Communications	VII
	BEC 7002-DE3	Information Theory and Coding	VII
	BEC 7003-DE3	Speech and Audio Processing	VII
	BEC 7004-DE3	Mixed Signal Design	VII
Department Elective-IV	BEC 7001-DE4	Digital System Design Using VHDL	VII
	BEC 7002-DE4	Adaptive Signal Processing	VII
	BEC 7003-DE4	Artificial Neural Network	VII
	BEC 7004-DE4	Scientific computing	VII
Department Elective-V	BEC 7001-DE5	Spread Spectrum Systems	VII
	BEC 7002-DE5	Mobile Communication and Networks	VII
	BEC 7004-DE5	MOOC: Principles of Modern CDMA/ MIMO/ OFDM Wireless Communications	VII
	BEC 7003-DE5	CMOS Design	VII

Department Elective-VI	BEC 8001-DE6	High Speed Electronics	VIII
	BEC 8002-DE6	Optoelectronics	VIII
	BEC 8003-DE6	MOOC: Digital Image Processing	VIII
	BEC 8004-DE6	Fundamentals of Radar and Navigation	VIII
Department Elective-VII	BEC 8001-DE7	Wireless Sensor Networks	VIII
	BEC 8002-DE7	Biomedical Signal Processing	VIII
	BEC 8003-DE7	Wavelets	VIII
	BEC 8004-DE7	Satellite Communication	VIII

LIST OF OPEN ELECTIVES

OE-1: V Sem.

S. NO.	SUBJECT CODE	SUBJECT NAME	DEPT. TO OFFER
1	BHU3301	Organizational Psychology	INSH
2	BHU3302	Organizational Sociology	INSH

OE-2: V Sem.

S. NO.	SUBJECT CODE	SUBJECT NAME	DEPT. TO OFFER
1	BCS5302	Data Structure	CSE
2	BCS5303	Information Systems	CSE
3	BEE5301	Solar and Energy Storage Systems	EE

OE-3: VI Sem.

S. NO.	SUBJECT CODE	SUBJECT NAME	DEPT. TO OFFER
1	BCS6301	Web Technologies	CSE
2	BCS6302	Advances in IT	CSE
3	BME6302	Mechatronics Systems	ME
4	BEE6301	Non-Conventional Energy Resources	EE

OE-4: VI Sem.

S. NO.	SUBJECT CODE	SUBJECT NAME	DEPT. TO OFFER
1	BMG6301	Economics	IMCE
2	BMG6302	Principles of Management	IMCE

OE-5: VII Sem.

S. NO.	SUBJECT CODE	SUBJECT NAME	DEPT. TO OFFER
1	BCS7305	Java Programming	CSE
2	BCS7304	E-Commerce	CSE
3	BEE7307	Advanced Control Systems	EE
4	BME7306	Computer Aided Design	ME

OE-6: VIII Sem.

S. NO.	SUBJECT CODE	SUBJECT NAME	DEPT. TO OFFER
1	BCS8304	Multimedia Tools and Applications	CSE
2	BEE8305	Wind Energy Conversion Systems	EE
3	BME8305	Automobile Engineering	ME

OE-7: VIII Sem.

S. NO.	SUBJECT CODE	SUBJECT NAME	DEPT. TO OFFER
1	BCS8305	Cyber Security and Cyber Laws	CSE
2	BCS8306	Software Quality Management	CSE
3	BEE8301	Fuzzy System and it's Application	EE