

First Year ENGINEERING – CBCS PATTERN

SEMESTER - I																			
Sr. No	Course	TEACHING SCHEME									EXAMINATION SCHEME								
		THEORY			TUTORIAL			PRACTICAL			THEORY					PRACTICAL (Term wok)			
		Credits	No. of Lecture	Hours	Credits	No. of Lecture	Hours	Credits	No. of Lecture	Hours	Hours	Mode	Marks	Total Marks	%Min	Hours	Max	%Min	
1	BSC-P	3	3	3	-	-	-	1	2	2			CIE	30	100	40%	As per BOS Guidelines	25	40%
	BSC-C											ESE	70						
2	BSC-M-I	3	3	3	1	1	1	-	-	-		CIE	30	100	40%	25		40%	
											ESE	70							
3	ESC	3	3	3	-	-	-	1	2	2		CIE	30	100	40%	25		40%	
											ESE	70							
4	ESC	3	3	3	-	-	-	1	2	2		CIE	30	100	40%	25		40%	
											ESE	70							
5	ESC	3	3	3	-	-	-	1	2	2		CIE	30	100	40%	25		40%	
											ESE	70							
6	HM-I	1	1	1	-	-	-	1	2	2		-	-	-	-	25		40%	
7	ESC-W-I	1	1	1	-	-	-	1	2	2		-	-	-	-	50		40%	
	TOTAL	17	17	17	1	1	1	6	12	12		500			200				
SEMESTER –II																			
1	BSC-P	3	3	3	-	-	-	1	2	2			CIE	30	100	40%	As per BOS Guidelines	25	40%
	BSC-C											ESE	70						
2	BSC-M-II	3	3	3	1	1	1	-	-	-		CIE	30	100	40%	25		40%	
											ESE	70							
3	ESC	3	3	3	-	-	-	1	2	2		CIE	30	100	40%	25		40%	
											ESE	70							
4	ESC	3	3	3	-	-	-	1	2	2		CIE	30	100	40%	25		40%	
											ESE	70							
5	ESC	3	3	3	-	-	-	1	2	2		CIE	30	100	40%	25		40%	
											ESE	70							
6	HM-II	1	1	1	-	-	-	1	2	2		-	-	-	-	25		40%	
7	ESC-W-II	1	1	1	-	-	-	1	2	2		-	-	-	-	50		40%	
	TOTAL	17	17	17	1	1	1	6	12	12		500			200				
	TOTAL	34	34	34	2	2	2	12	24	24		1000			400				

CIE –Continuous Internal Evaluation

ESE – End Semester Examination

Note :	• Candidate contact hours per week : 30 Hours (Minimum)	• Total Marks for B.E. Sem I & II : 1400
	• Theory and Practical Lectures : 60 Minutes Each	• Total Credits for B.E.-I (Semester I & II) : 48
	• In theory examination there will be a passing based on separate head of passing for examination of CIE and ESE.	
	• There shall be separate passing for theory and practical (term work) courses.	
	A) Non-Credit Self Study Course : Compulsory Civic Courses (CCC) For Sem I: CCC – I : Democracy, Elections and Good Governance (B) Non-Credit Self Study Course : Skill Development Courses (SDC) For Sem II: SDC – I : Any one from following (i) to (v) i) Business Communication & Presentation ii) Event management iii) Personality Development, iv) Yoga & Physical Management v) Resume, Report & proposal writing	

1. **BSC** : Basic Science Course are compulsory.
2. **HM** : Humanities and Management are compulsory.
3. **ESC** : Engineering Science Course : **ESC – P** courses (subjects) are mandatory for **Physics** group, while **ESC – C** courses (subjects) are mandatory for **Chemistry** group.
4. There will be two groups for Sem I & II Physics and Chemistry. The Candidate's those opting Physics group in Sem I shall appear for Chemistry group in Sem II and Vice-versa.
5. **ESC-W**: Engineering Science Course-Workshops are compulsory.

Second Year ELECTRONICS & TELECOMMUNICATION ENGINEERING– CBCS PATTERN

SEMESTER - III																									
Sr · No	Course (Subject Title)	TEACHING SCHEME												EXAMINATION SCHEME											
		THEORY				TUTORIAL				PRACTICAL				THEORY					PRACTICAL			TERM WORK			
		Credits	No. of Lecture	Hours		Credits	No. of Lecture	Hours		Credits	No. of Lecture	Hours		Hours	Mode	Marks	Total Marks	Min	Hours	Max	Min	Hours	Max	Min	
1	BSC-ETC301	3	3	3		1	1	1		-	-	-			CIE	30	100	12	As per BOS Guidelines	-	-	2	25	10	
2	PCC-ETC301	4	4	4		-	-	-		1	2	2			ESE	70	100	28		50	20	2	25	10	
3	PCC-ETC302	3	3	3		1	1	1		-	-	-			CIE	30	100	12		-	-	2	25	10	
4	PCC-ETC303	3	3	3		-	-	-		1	2	2			ESE	70	100	28				2	25	10	
5	PCC-ETC304	3	3	3		-	-	-		1	2	2			CIE	30	100	12		50	20	2	25	10	
6	PCC-ETC305	2	2	2		-	-	-		1	2	2			ESE	70	100	28		50	20	2	25	10	
	MC-ETC-301	3	3	3											-	-	-	-		-	-	-	-	-	
															CIE	30	100	12		-	-	-	-	-	
															ESE	70	100	28							
	TOTAL	21	21	21		2	2	2		4	8	8			600					150			150		
SEMESTER -IV																									
1	PCC-ETC401	4	4	4		-	-	-		1	2	2			CIE	30	100		As per BOS Guidelines	50	20	2	25	10	
2	PCC-ETC402	4	4	4		-	-	-		1	2	2			ESE	70	100			50	20	2	25	10	
3	PCC-ETC403	3	3	3		-	-	-		-	-	-			CIE	30	100			-	-	2	25	10	
4	PCC-ETC404	3	3	3		-	-	-		1	2	2			ESE	70	100			-	-	2	25	10	
5	PCC-ETC405	3	3	3		-	-	-		-	-	-			CIE	30	100			-	-	2	25	10	
6	PCC-ETC406	2	2	2		-	-	-		1	2	2			ESE	70	100			50	20	2	25	10	
																							-		
	TOTAL	19	19	19		0	0	0		4	8	8			500					150			150		
	TOTAL	40	40	40		2	2	2		8	16	16			1100					300			300		

CIE- Continuous Internal Evaluation
ESE – End Semester Examination

• Candidate contact hours per week : 30 Hours (Minimum)	• Total Marks for S.E. Sem III & IV: 1600
• Theory and Practical Lectures : 60 Minutes	• Total Credits for S.E. Sem III & IV : 50
• In theory examination there will be a passing based on separate head of passing for examination of CIE and ESE.	
• There shall be separate passing for theory and practical (term work) courses.	

Note:

1. **BSC-ETC:** Basic Science Course- Electronics & Telecommunication Engineering are compulsory.
2. **PCC-ETC:** Professional Core course –Electronics & Telecommunication Engineering are compulsory.
3. **MC-ETC:** Mandatory Course: Environmental Studies which is compulsory for theory 70 marks and project work 30 marks.

Third Year ELECTRONICS & TELECOMMUNICATION ENGINEERING– CBCS PATTERN

SEMESTER – V																										
Sr. No	Course (Subject Title)	TEAETCING SETCEME										EXAMINATION SETCEME														
		THEORY				TUTORIAL				PRACTICAL				THEORY					PRACTICAL			TERM WORK				
		Credits	No. of Lecture	Hours		Credits	No. of Lecture	Hours		Credits		No. of Lecture		Hours	Hours	Mode	Marks	Total Marks	Min	Hours	Max	Min	Hours	Max	Min	
1	PCC-ETC501	4	4	4		1	1	1		-	-	-			CIE	30	100	12	As per BOS Guidelines	-	-	2	25	10		
2	PCC-ETC502	3	3	3		1	1	1		-	-	-			ESE	70		28			-	-	2	25	10	
3	PCC-ETC503	4	4	4		-	-	-		1	2	2			CIE	30	100	12			50	20	2	25	10	
4	PCC-ETC504	4	4	4		-	-	-		1	2	2			ESE	70		28			50	20	2	25	10	
5	OEC-ETC501	3	3	3		1	1	1		-	-	-			CIE	30	100	12			-	-	2	25	10	
6	PCC-ETC506	1	1	1		-	-	-		1	2	2			ESE	70		28			50	20	2	25	10	
	TOTAL	19	19	19		3	3	3		3	6	6					500				150		150			
SEMESTER –VI																										
1	PCC-ETC601	4	4	4		-	-	-		1	2	2			CIE	30	100	12		As per BOS Guidelines	-	-	2	25	10	
2	PCC-ETC602	4	4	4		-	-	-		1	2	2			ESE	70		28				50	20	2	25	10
3	PCC-ETC603	4	4	4		-	-	-		1	2	2			CIE	30	100	12				50	20	2	25	10
4	PCC-ETC604	4	4	4		-	-	-		1	2	2			ESE	70		28				-	-	2	25	10
5	OEC-ETC601	3	3	3		1	1	1		-	-	-			CIE	30	100	12			-	-	2	25	10	
6	PCC-ETC605	-	-	-		-	-	-		1	2	2			ESE	70		28			50	20	2	25	10	
	TOTAL	19	19	19		1	1	1		5	10	10					500				150		150			
	TOTAL	38	38	38		4	4	4		8	16	16					1000				300		300			

CIE- Continuous Internal Evaluation
ESE – End Semester Examination

• Candidate contact hours per week : 30 Hours (Minimum)	• Total Marks for T.E. Sem V& VI: 1600
• Theory and Practical Lectures : 60 Minutes EaETC	• Total Credits for T.E. Sem V & VI : 50
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• There shall be separate passing for theory and practical (term work) courses.	
(A) Non-Credit Self Study Course : Compulsory Civic Courses (CCC) For Sem I: CCC – I : Democracy, Elections and Good Governance (B) Non-Credit Self Study Course : Skill Development Courses (SDC) For Sem II: SDC – I : Any one from following (i) to (v) i) Business Communication & Presentation ii) Event management iii) Personality Development, iv) Yoga & Physical Management v) Resume, Report & proposal writing	

Note:

1. **PCC-ETC:** Professional Core course – Electronics & Telecommunication Engineering are compulsory.
2. **OCE-ETC :** Open Elective Course – Electronics & Telecommunication Engineering:
3. **Students should go for summer or winter internships in industry. Evaluation and report submission of the same will be done in Project-I term work**

Final Year ELECTRONICS & TELECOMMUNICATION ENGINEERING- CBCS PATTERN

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5	PW-ETC801	-	-	-		-	-	-		4	8	8		-		-	-	-	150	60	2	50	20
	TOTAL	16	16	16		1	1	1		7	14	14	400				250	150					
	TOTAL	35	35	35		3	3	3			12	24	24				900		375		325		

ESE – End Semester Examination

• Candidate contact hours per week : 30 Hours (Minimum)	• Total Marks for B.E. Sem VII & VIII : 1600
• Theory and Practical Lectures : 60 Minutes ETC	• Total Credits for B.E. Sem VII & VIII : 50
• In theory examination there will be a passing based on separate head of passing for examination of CIE and ESE.	
• There shall be separate passing for theory and practical (term work) courses.	

Note

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1. **PCC-ETC:** Professional Core course –Electronics & Telecommunication Engineeringare compulsory.
2. **PCE-ETC:** Professional Core Elective –Electronics & Telecommunication Engineeringare compulsory.
3. **SI-ETC:** Summer Internship-Electronics & Telecommunication Engineeringis compulsory.
4. **PW-ETC:** Project work- Electronics & Telecommunication Engineeringis compulsory.
5. **MC-ETC:** Mandatory Course- Electronics & Telecommunication Engineeringis compulsory

Shivaji University, Kolhapur

Electronics and Telecommunication Engineering

COURSE CODE AND DEFINITION

Course code	Definitions	Total Credit	Total Percentage
BSC	BASIC SCIENCE COURSES		
PCC	PROFESSIONAL CORE COURSES		
MC	MANDATORY COURSE		
ESC	ENGINEERING SCIENCE COURSES		
PCE	PROFESSIONAL CORE ELECTIVES		
SI	SUMMER INTERNSHIP		
PW	PROJECT Work		
OEC	OPEN ELECTIVE COURSES		
HM	Humanities and Management		
		200	100

Semester I

Sl. No	Code No.	Subject	Semester	Credits
1.	BSC-P101	Engineering Physics	1	3
2.	BSC-C101	Engineering chemistry	1	3
3.	BSC-M101	Engineering Mathematics-I	1	3
4.	ESC-P101	Basic Electrical Engineering	1	3
5.	ESC-P102	Basic Civil Engineering	1	3
6.	ESC-P103	Engineering Graphics	1	3
7.	ESC-C101	Fundamentals of Electronics and Computer Programming	1	3
8.	ESC-C102	Applied Mechanics	1	3
9.	ESC-C103	Basic Mechanical Engineering	1	3

10.	ESC-W101	Workshop Practice-I	1	2
11.	HM-01	Professional Communication-I	1	2

Semester II

Sl. No	Code No.	Subject	Semester	Credits
1.	BSC-P101	Engineering Physics	2	3
2.	BSC-C102	Engineering Chemistry	2	3
3.	BSC-M102	Engineering Mathematics-II	2	3
4.	ESC-C104	Basic Electrical Engineering	2	3
5.	ESC-C105	Basic Civil Engineering	2	3
6.	ESC-C106	Engineering Graphics	2	3
7.	ESC-P104	Fundamentals of Electronics and Computer	2	3
8.	ESC-P105	Applied Mechanics	2	3
9.	ESC-P106	Basic Mechanical Engineering	2	3
10.	ESC-W102	Workshop Practice-II	2	2
11.	HM-102	Professional Communication-II	2	2

Semester III

Sr. No	Code No.	Subject	Semester	Credits
1.	BSC-ETC301	Engineering Mathematics-III	3	4
2.	PCC-ETC-301	Electronic Circuit Design-I	3	5
3.	PCC-ETC302	Network Analysis	3	4
4.	PCC-ETC303	Transducers and Measurement	3	4
5.	PCC-ETC304	Analog Communication	3	4
6.	PCC-ETC305	Programming Lab-I	3	3
7.	MC-ETC-301	Environmental studies	3	3
		Total		27

Semester IV

Sr. No	Code No.	Subject	Semester	Credits
1	PCC-ETC401	Electronic Circuit Design-II	4	5
2	PCC-ETC402	Linear integrated Circuits	4	5
3	PCC-ETC403	Control System Engineering	4	3
4	PCC-ETC404	Digital Communication	4	4
5	PCC-ETC405	Data Structures	4	3
6	PCC-ETC406	Programming Lab-II	4	3
		Total		23

Semester V

Sr. No	Code No.	Subject	Semester	Credits
1.	PCC-ETC501	Signal and Systems	5	5
2.	PCC-ETC502	Electromagnetic Engineering	5	4
3.	PCC-ETC503	Digital and VLSI Design	5	5
4.	PCC-ETC504	Optical Communication	5	5
5.	OEC-ETC501	Open Elective – I	5	4
6.	PCC-ETC505	Simulation and Modeling	5	2
		Total		25

Semester VI

Sr. No	Code No.	Subject	Semester	Credits
1.	PCC-ETC601	Digital Signal Processing	6	5
2.	PCC-ETC602	Microprocessor and Microcontrollers	6	5
3.	PCC-ETC603	Power Electronics	6	5
4.	PCC-ETC604	Antenna and Wave Propagation	6	5
5.	OEC-ETC601	Open Elective – II	6	4
6.	PCC-ETC605	Mini Project	6	1
		Total		25

Semester VII

Sr. No	Code No.	Subject	Semester	Credits
1.	PCC-ETC701	Satellite Communication	7	4
2.	PCC-ETC702	Embedded Systems	7	5
3.	PCC-ETC703	Computer Networks	7	5
4.	PCC-ETC704	Image Processing	7	5
5.	PCE-ETC701	Elective-I	7	5
6.	PW-ETC701	Project Phase-I	7	2
7.				
		Total		26

Semester VIII

Sr. No	Code No.	Subject	Semester	Credits
1.	PCC-ETC801	Microwave Engineering	8	5
2.	PCC-ETC802	Wireless Communication	8	5
3.	PCC-ETC803	Video Engineering	8	5
4.	PCE-ETC801	Elective-II	8	5
5.	PW-ETC801	Project Phase – II	8	4
		Total		24