



Shri Vithal Education & Research Institute's

**COLLEGE OF ENGINEERING, PANDHARPUR**



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Website.: [www.sveri.ac.in](http://www.sveri.ac.in) (Approved by A.I.C.T.E., New Delhi and Affiliated to Solapur University, Solapur)  
NBA Accredited all eligible UG Programmes. NAAC Accredited Institute ISO 9001:2015 Certified Institute  
Accredited by The Institution of Engineers (India), Kolkata and TCS, Pune

Ref.:-

Date:-

**1.2.1 List of programs in which Choice Based Credit System (CBCS)/elective course system has been implemented**

<b>Programme Name : Electrical Engineering</b>			
<b>Programme Code: 1-3675277161</b>			
<b>Sr. No.</b>	<b>Class Name</b>	<b>Status of implementation of CBCS / elective course system (Yes/No)</b>	<b>Year of implementation of CBCS / elective course system</b>
1	F. Y. B.Tech. Electrical Engineering	Yes (CBCS)	2018-19
2	S. Y. B.Tech. Electrical Engineering	Yes (CBCS)	2019-2020



*B. B. Borge*  
PRINCIPAL  
College of Engineering,  
PANDHARPUR



# **SOLAPUR UNIVERSITY, SOLAPUR**

**FACULTY OF ENGINEERING & TECHNOLOGY**

**ALL BRANCHES**

**CBCS Syllabus for**

**First Year B.Tech. (All Branches)**

**w.e.f. Academic Year 2018-19**



**SOLAPUR UNIVERSITY, SOLAPUR**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**CBCS Curriculum for First Year B.Tech. (All Branches)**  
**WEF 2018-19**

- Semester I : Theory Courses

Course Code	Name of the Course	Engagement Hours			Credits	FA		SA		Total
		L	T	P		ESE	ISE	ICA		
C011/ C012	Engineering Physics / Engineering Chemistry\$	3			3	70	30			100
C112	Engineering Mathematics I	3			3	70	30			100
C113	Basic Electrical & Electronics Engineering	4			4	70	30			100
C114	Engineering Mechanics	3			3	70	30			100
C115	Basic Mechanical Engineering	3			3	70	30			100
C116	Communication Skills	1			1		25			25
<b>Total</b>		<b>17</b>			<b>17</b>	<b>350</b>	<b>175</b>			<b>525</b>

- Semester I : Laboratory / Tutorial Courses

Course Code	Name of the Course	Engagement Hours			Credits	FA		SA		Total
		L	T	P		ESE	ISE	ICA		
C011/ C012	Engineering Physics / Engineering Chemistry\$			2	1			25		25
C112	Engineering Mathematics I		1		1			25		25
C113	Basic Electrical & Electronics Engineering			2	1			25		25
C114	Engineering Mechanics			2	1			25		25
C115	Basic Mechanical Engineering			2	1			25		25
C116	Communication Skills			2	1			25		25
C117	Workshop Practice			2	1			25		25
<b>Total</b>			<b>1</b>	<b>12</b>	<b>7</b>			<b>175</b>		<b>175</b>
<b>Grand Total</b>		<b>17</b>	<b>1</b>	<b>12</b>	<b>24</b>	<b>350</b>	<b>175</b>	<b>175</b>		<b>700</b>
C118	Induction Program	<i># (Please see note below)</i>								

- Semester II : Theory Courses

Course Code	Name of the Course	Engagement Hours			Credits	FA	SA		Total
		L	T	P		ESE	ISE	ICA	
C011/ C012	Engineering Physics / Engineering Chemistry\$	3			3	70	30		100
C122	Engineering Mathematics II	3			3	70	30		100
C123	Engineering Graphics & Design	3			3	70	30		100
C124	Basic Civil Engineering	3			3	70	30		100
C125	Programming for Problem Solving	2			2		25		25
C126	Professional Communication	1			1		25		25
Total		15			15	280	170		450
C127	Democracy, Elections and Good Governance					30			30

- Semester II : Laboratory / Tutorial Courses

Course Code	Name of the Course	Engagement Hours			Credits	FA	SA		Total
		L	T	P		ESE (POE)	ISE	ICA	
C011/ C012	Engineering Physics / Engineering Chemistry\$			2	1			25	25
C122	Engineering Mathematics II		1		1			25	25
C123	Engineering Graphics & Design			4	2			50	50
C124	Basic Civil Engineering			2	1			25	25
C125	Programming for Problem Solving			4	2	50#		50	100
C127	Professional Communication			2	1			25	25
Total			1	14	8	50		200	250
<b>Grand Total</b>		<b>15</b>	<b>1</b>	<b>14</b>	<b>23</b>	<b>330</b>	<b>170</b>	<b>200</b>	<b>700</b>
C128	Democracy, Elections and Good Governance							20	

- Legends used –

L	Lecture	FA	Formative Assessment
T	Tutorial	SA	Summative Assessment
P	Lab Session	ESE	End Semester Examination
		ISE	In Semester Evaluation
		ICA	Internal Continuous Assessment

- Notes-

1. \$ - Indicates approximately half of the total students at FE will enroll under Group A and remaining will enroll under Group B.

Group A will take up course of Engineering Physics (theory & laboratory) in Semester I and will take up course of Engineering Chemistry (theory & laboratory) in semester II.

Group B will take up course of Engineering Chemistry (theory & laboratory) in Semester I and will take up course of Engineering Physics (theory & laboratory) in semester II

2. # - Indicates the subject 'Programming for Problem Solving' shall have a University 'Practical and Oral Examination' at the end of the semester assessing student's programming skills.

3. In Semester Evaluation (ISE) marks shall be based upon student's performance in minimum two tests & mid-term written test conducted & evaluated at institute level

Internal Continuous Assessment Marks (ICA) are calculated based upon student's performance during laboratory sessions / tutorial sessions

4. Democracy, Elections & Good Governance is mandatory course. The marks earned by student with this course shall not be considered for calculation of SGPA/CGPA. However student must complete ICA of 20 marks and End Semester Examination (ESE) of 30 marks (as prescribed by university, time to time) for fulfillment of this course. This course is not considered as a passing head for counting passing heads for ATKT. However, student must pass this subject for award of the degree

5. Student must complete induction program of minimum five days before commencement of the regular academic schedule at the first semester.

## GUIDELINES FOR INDUCTION PROGRAM (C128)

New entrants into an Engineering program come with diverse thoughts, mind set and different social, economical, regional and cultural backgrounds. It is important to help them adjust to the new environment and inculcate in them the ethos of the institution with a sense of larger purpose.

A **Five day** induction program for the new UG entrant students is proposed at the commencement of the first semester. It is expected to complete this induction program before commencement of the regular academic schedule.

Its purpose is to make new entrants comfortable in their new environment, open them up, set a healthy daily routine for them, create bonding amongst the peers as well as between faculty and students, develop awareness, sensitivity and understanding of the self, people around them, society at large, and nature.

The Induction Program shall encompass (but not limited to) below activity –

1. Physical Activities
2. Creative Arts
3. Exposure to Universal Human Values
4. Literary Activities
5. Proficiency Modules
6. Lectures by Experts / Eminent Persons
7. Visit to Local Establishments like Hospital / Orphanage
8. Familiarization to Department

Induction Program Course do not have any marks or credits however performance of students for Induction Program is assessed at institute level using below mandatory criteria –

1. Attendance and active participation
2. Report writing

**Punyashlok Ahilyadevi Holkar Solapur University, Solapur**



**Name of the Faculty: Science & Technology**

**CHOICE BASED CREDIT SYSTEM**

**Syllabus: Electrical Engineering**

**Syllabus Structure**

**S.Y. B.Tech (Electrical Engineering) w. e. f. Academic Year 2019-20**

**T.Y. B.Tech (Electrical Engineering) w. e. f. Academic Year 2020-21**

**Final Year B.Tech (Electrical Engineering) w. e. f. Academic Year 2021-22**

**Punyashlok Ahilyadevi Holkar Solapur University, Solapur**  
**Faculty of Engineering & Technology**  
**S.Y. B Tech. (Electrical Engineering)**

*Choice Based Credit System Syllabus Structure of S. Y. B. Tech. Electrical Engineering W.E.F. 2019-2020*

**Semester I**

Course Code	Theory Course Name	Hrs./week			Credits	Examination Scheme				
		L	T	P		ISE	ESE	ICA	Total	
	Engineering Mathematics-III	2	1		3	30	70	25	125	
	Electrical Machines-I	3	-		3	30	70	-	100	
	Electrical Measurement and Instrumentation	3	-		3	30	70	-	100	
	Power System I	3	1		4	30	70	25	125	
	Electronic Devices and Circuits	2	-		2	30	70	-	100	
	Object Oriented Programming with C++	1	-		1	--	--	-	--	
<b>Sub Total</b>		<b>14</b>	<b>2</b>	<b>-</b>	<b>16</b>	<b>150</b>	<b>350</b>	<b>50</b>	<b>550</b>	
	Environmental Science	1								
<b>Laboratory Course Name</b>										
							ESE			
							POE	OE		
	Electrical Machines-I	-	-	2	1	-	50	-	25	75
	Electrical Measurement and Instrumentation	-	-	2	1	-	50	-	25	75
	Electronic Devices and Circuits	-	-	2	1	-		-	25	25
	Object Oriented Programming with C++	-	-	2	1	-	50	-	25	75
<b>Sub Total</b>		<b>-</b>	<b>-</b>	<b>8</b>	<b>4</b>		<b>150</b>		<b>100</b>	<b>250</b>
<b>Grand Total</b>		<b>14</b>	<b>2</b>	<b>8</b>	<b>20</b>	<b>150</b>	<b>500</b>	<b>150</b>	<b>800</b>	

➤ Abbreviations: L- Lectures, P –Practical, T- Tutorial, ISE- In semester Exam, ESE - End Semester Exam, ICA- Internal Continuous Assessment, ESE - University Examination (Theory &/ POE &/Oral examination)



**Punyashlok Ahilyadevi Holkar Solapur University, Solapur**  
**Faculty of Engineering & Technology**  
**S. Y. B. Tech. (Electrical Engineering)**

*Choice Based Credit System Structure of S. Y. B. Tech. Electrical Engineering W.E.F. 2019-2020*

**Semester II**

Course Code	Theory Course Name	Hrs./week			Credits	Examination Scheme			
		L	T	P		ISE	ESE	ICA	Total
	Numerical Methods and Linear Algebra	2	1	-	3	30	70	25	125
	Electrical Machines-II	3	-	-	3	30	70	-	100
	Power System II	3	1	-	4	30	70	25	125
	Analog & Digital Integrated circuits	3	-	-	3	30	70	-	100
	Network Analysis	3	-	-	3	30	70	-	100
<b>Sub Total</b>		<b>14</b>	<b>2</b>	<b>-</b>	<b>16</b>	<b>150</b>	<b>350</b>	<b>50</b>	<b>550</b>
	Environmental Science	1	-	-	-	-	-	-	1
<b>Laboratory Course Name</b>									
						ESE			
						POE	OE		
	Electrical Machines-II	-	-	2	1	-	50	-	75
	Network Analysis	-	-	2	1	-	50	-	75
	Analog & Digital Integrated circuits	-	-	2	1	-	-	-	75
	Computer Aided Design and Simulation	-	-	2	1	-	50	-	75
<b>Sub Total</b>		<b>-</b>	<b>-</b>	<b>8</b>	<b>4</b>	<b>-</b>	<b>150</b>	<b>100</b>	<b>250</b>
<b>Grand Total</b>		<b>14</b>	<b>2</b>	<b>8</b>	<b>20</b>	<b>150</b>	<b>500</b>	<b>150</b>	<b>800</b>

- Abbreviations: L- Lectures, P- Practical, T- Tutorial, ISE- In Semester Exam, ESE - End Semester Exam, ICA- Internal Continuous Assessment, ESE - University Examination (Theory &/ POE &/ Oral examination)

**Note –**

- Batch size for the SE practical /tutorial shall be of 20 students. On forming the batches, if the strength of remaining student exceeds 9, then a new batch shall be formed.
- Vocational Training (evaluated at B.E. Part-I) of minimum 15 days shall be completed in any vacation after S.E. Part-II but before B.E. Part-I & and evaluated on the basis of presentation as well as training report.
- Student shall select one Self Learning Module at T.E. Part I and T.E. Part II each from Technical and Humanities and Social Sciences Group with at least one Self Learning Module from the Humanities and Social Sciences Group
- Curriculum for Humanities and Social Sciences Self Learning Modules is common for all under graduate programmes of faculty of Engineering and Technology
- Minimum four assignments for Self-Learning Modules at T.E. Part I and T.E. Part II shall be submitted by the students which shall be evaluated by a Module Coordinator assigned by institute / department
- Project group for T.E.(Electrical) Part II Mini Project shall not be of more than three student
- Project group for B.E. (Electrical) Part I and Part II shall not be of more than FOUR students.
- ICA shall be a continuous process based on student's performance in – class tests, assignments, homework, subject seminars, quizzes, laboratory books and their interaction and attendance for theory and lab sessions as applicable