

**GOVT. COLLEGE OF ENGINEERING  
AMRAVATI**

**DEPARTMENT OF  
COMPUTER SCIENCE AND ENGINEERING**



**CURRICULUM**

**For**

**B. Tech. Second Year  
(Computer Science and Engineering)**

**2020 – 21**

## **Program Objectives**

The Undergraduate students will demonstrate.

- I. To create graduates with foundation knowledge of computer science and engineering, who can contribute towards emerging technologies.
- II. To develop an ability to identify, formulate and develop solution to solve real life computational challenges.
- III. To create graduates with sufficient capabilities in computer science and scientific computing who can become researchers and developers to satisfy the needs of the core computer technology industry.
- IV. To inculcate attitude of innovative driven entrepreneurship (IDE).
- V. To make the students aware of professional and social ethics and prepare them with basic soft skills essential for working in societal and professional teams.

## **Program Outcomes (POs):**

The Undergraduate Students will have ability to

1. Apply knowledge of fundamental programming, mathematics, algorithms and technologies in Computer Science & Engineering to solve real life problems faced by the industry.
2. Demonstrate knowledge of fundamentals of hardware technology relevant to understanding Computer Science basics.
3. Demonstrate capability to work in teams and in professional, ethical, legal and social responsible framework.
4. An ability to communicate general and technical topics in written and verbal forms with diverse stakeholders.
5. Demonstrate their ability to use the state of the art technologies and tools including Free and Open Source Software (FOSS) tools in developing software.
6. A potential to perform good in the examinations for higher education.
7. Expand their qualities of learning and demonstrating latest technology.



**B. Tech. (Computer Science and Engineering)**

**SEM III**

Category	Course Code	Name of the Course	Teaching Scheme					Evaluation Scheme					Credits
			Theory Hrs/week	Tutorial Hrs/week	Practical Hrs/week	Total	Theory			Practical		Total	
							MSE	TA	ESE	ICA	ESE		
ESC	ETU331	Analog and Digital Integrated Circuit	3	---	---	3	30	10	60	---	---	100	3
PCC	CSU321	Data Structure and Algorithms	3	---	---	3	30	10	60	---	---	100	3
PCC	CSU322	Discrete Mathematics	3	---	---	3	30	10	60	---	---	100	3
BSC	SHU321B	Transform and Linear Algebra	3	1	---	4	30	10	60	---	---	100	4
	SHU322B	Differential Equation and Transform	1	---	---	---	---	20	30	---	---	50	0
HSMC	SHU324	Introduction to Constitution of India Effective technical communication	3	---	---	3	30	10	60	---	---	100	3
ESC-LC	ETU332	Analog and Digital Integrated Circuit Lab	---	---	4	4	---	---	---	25	25	50	2
PCC-LC	CSU323	Data structure and Algorithms Lab	---	---	4	4	---	---	---	25	25	50	2
PCC-LC	CSU324	IT Workshop (Sci Lab/MATLAB)	1	---	4	5	---	---	---	25	25	50	3
Total			17	1	12	29	150	70	330	75	75	700	23

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**B. Tech. (Computer Science and Engineering)**

SEM IV													
Category	Course Code	Name of the Course	Teaching Scheme					Evaluation Scheme					Credits
			Theory Hrs/week	Tutorial Hrs/week	Practical Hrs/week	Total	Theory			Practical		Total	
							MSE	TA	ESE	ICA	ESE		
PCC	CSU421	Object Oriented Programming	3	1	---	4	30	10	60	---	---	100	4
PCC	CSU422	Computer Organization and Architecture	3	---	---	3	30	10	60	---	---	100	3
PCC	CSU423	Operating System	3	---	---	3	30	10	60	---	---	100	3
PCC	CSU424	Design and Analysis of Algorithms	3	---	---	---	30	10	60	---	---	100	3
HSMC	CSU425	Organizational Behaviour	3	---	---	3	30	10	60	---	---	100	3
MC	<del>SHU421</del>	Environmental <del>Sciences</del> <i>Studies</i>	1	---	---	---	---	20	30	---	---	50	0
PCC	CSU 426	Object Oriented Programming Lab	---	---	4	4	--	--	---	25	25	50	2
PCC-LC	CSU427	Computer Organization and Architecture Lab	---	---	4	4	---	---	---	25	25	50	2
PCC-LC	CSU428	Operating Systems Lab	---	---	4	4	---	---	---	25	25	50	2
PCC-LC	CSU429	Design and Analysis of Algorithms Lab	---	---	4	4	---	---	---	25	25	50	2
		<b>Total</b>	<b>16</b>	<b>1</b>	<b>16</b>	<b>29</b>	<b>150</b>	<b>70</b>	<b>330</b>	<b>100</b>	<b>100</b>	<b>750</b>	<b>24</b>

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