K. S. INSTITUTE OF TECHNOLOGY, BENGALURU

An Autonomous Institution under VTU, Approved by AICTE Scheme of Teaching and Examinations-2025

Outcome-Based Education (OBE)and Choice Based Credit System (CBCS)

(Effective from the academic year 2025-26)

II SEMESTER (MCA Stream)

Sl. No	Course Type	Course Code	Course Title	Teaching Hours per Week			Examination				Credits
				Theory	Practical/Seminar	Tutorial/SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
				L	P	T/SDA					
1	IPCC	25MMC201	Artificial Intelligence and Machine Learning	3	2	0	03	50	50	100	4
2	PCC	25MMC202	Object Oriented Programming using JAVA	4	0	0	03	50	50	100	4
3	PCC	25MMC203	Data Structure and Algorithms	4	0	0	03	50	50	100	4
4	PCC	25MMC204	Software Engineering	2	0	2	03	50	50	100	3
5	PCC	25MMC205	Python Programming	3	0	0	03	50	50	100	3
6	PCCL	25MML206	Object Oriented Programming using JAVA Laboratory	0	2	2	03	50	50	100	2
7	PCCL	25MML207	Data Structure and Algorithms Laboratory	0	2	2	03	50	50	100	2
8	NCMC	25MAE258	Ability Enhancement Courses with Seminar-I								PP
			Total					**350**	**350**	**700**	**22**

BSC: Basic Science Courses:

Courses like Mathematics/ Science are the prerequisite courses that the concerned engineering stream board of Studies will decide. **PCC: Professional Core Course:** Courses related to the stream of engineering, which will have both CIE and SEE components, students have to qualify in the course for the award of the degree. **Integrated Professional Core Course (IPCC)**: Refers to a Professional Theory Core Course Integrated with practicals of the same course. The IPCC's theory part shall be evaluated by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of IPCC shall be included in the SEE question paper. **Project Based Learning Course (PCC(PB):** Project Based Learning course is a professional core Course only Students have to complete a project out of learning from the course and SEE will be viva voce on project work. **PCCL: Professional Core Course Laboratory:** Practical courses whose CIE will be evaluated by the class teacher and SEE will be evaluated by the two examiners.

Skill development activities: Under Skill development activities in a concerning course, the students should

1. Interact with industry (small, medium, and large).
2. Involve in research/testing/projects to understand their problems and help creative and innovative methods to solve the problem.
3. Involve in case studies and field visits/ fieldwork.
4. Accustom to the use of standards/codes etc., to narrow the gap between academia and industry.
5. Handle advanced instruments to enhance technical talent.
6. Gain confidence in the modeling of systems and algorithms for transient and steady-state operations, thermal study, etc.
7. Work on different software/s (tools) to simulate, analyze, and authenticate the output to interpret and conclude.

All activities should enhance student's abilities to employment and/or self-employment opportunities, management skills, Statistical analysis, fiscal expertise, etc. Students and the course instructor/s are to be involved either individually or in groups to interact together to enhance the learning and application skills of the study they have undertaken. The students with the help of the course teacher can take up relevant technical –activities that will enhance their skills. The prepared report shall be evaluated for CIE marks.

25MAE258- Ability Enhancement Courses with Seminar-I - None Credit Mandatory Course (NCMC), Students have to select the Topic like ERP, R Programming, Scripting language, Web Development Application, etc. They have to develop a small prototype and demonstrate to all the class.