K. S. INSTITUTE OF TECHNOLOGY, BENGALURU

An Autonomous Institute 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)

I Semester **(For students attending under Chemistry Group)**

Sl. No	Course and Course Code		Course Title	Course category	TD/PSB	Teaching Hours/Week				Examination				Credits
						Theory Lecture	Tutorial	Practical /	SDA	Duration in hours	CIE Marks	SEE Marks	Total Marks	
						L	T	P	S					
1	*ASC	25BMAXX101	Applied Mathematics-I	CORE	Maths Dept.	3	2	0	0	03	50	50	100	04
2	#ASC(IC)	25BCHXX102	Applied Chemistry	IPCC	Chemistry Dept.	3	0	2	0	03	50	50	100	04
3	ETC	25BETCK103	Introduction to AI and Applications	CORE	Respective Engg. Dept.	3	0	0	0	03	50	50	100	03
4	ESC-I	25BESC104X	Engineering Science Course-I	CORE	Respective Engg. Dept.	3	0	0	0	03	50	50	100	03
5	PLC	25BPLC105X	Programming Language Course	CORE	CSE & Allied Dept.	3	0	0	0	03	50	50	100	03
6	AEC	25BCPSK106	Communicative & Professional Writing Skills in English	HSMS	Humanities	1	0	0	0	01	50	50	100	01
7	AEC (NCMC)	25BICOK107	Indian Constitution	HSMS	Humanities	1	0	0	0	01	100	--	100	PP
8	AEC/ SDC	25BPBLK108	Innovation and Design Thinking Lab (Project based learning)	AEC	Any Dept.	0	0	0	2	02	50	50	100	01
9	PLC	25BPLL109X	Programming Language Course Lab	LAB	CSE & Allied Dept.	0	0	2	0	02	50	50	100	01
					TOTAL	**17**	**2**	**7**	**2**	**21**	**500**	**400**	**900**	**20**

10. AICTE Activity Points : Students have to must earn 100 activity points between 1st to 8th Semester for the Award of Degree

SDA stands for Skill Development Activities, while TD/PSB refers to the Teaching Department or Paper Setting Board. **ASC** denotes Applied Science Courses, and **ESC** represents Engineering Science Courses. **ETC** stands for Emerging Technology Courses, and **AEC** refers to Ability Enhancement Courses. **HSMS** includes Humanity and Social Science and Management Courses, whereas SDC stands for Skill Development Courses. **C**IE means Continuous Internal Evaluation, and **SEE** is the abbreviation for Semester End Examination. **IC** refers to an Integrated Course, which is a theory course integrated with a practical component. **NCMC**: Non Credit mandatory course, **PP**: Pass/Pass for **NCMC** if student have successfully completed the CIE requirement, otherwise **NP** (not Pass) shall be awarded. PP is essential for the award of the degree.

***The mathematics subject should be taught by a single faculty member per division, with no sharing of the course (subject) module-wise by different faculty members.**

#- 25BCHXX102**-** SEE shall have the 03 hours of theory examination and 02-03 hours of practical examination.

ESC or ETC of 03 credits Courses shall have only a theory component (L:T :P:S=3:0:0:0) or if the nature the of course required experimental learning syllabus shall be designed as an Integrated course (L:T:P:S= 2:0:2:0),

All 01 Credit- courses shall have the SEE of 01 hours duration and the pattern of the question paper shall be MCQ

Credit Definition:	04-Credits courses are to be designed for 50 hours of Teaching-Learning Session
1- hour Lecture **(L)** per week=**1Credit** **2-** hours Tutorial**(T)** per week=**1Credit** **3-**hours Practical / Drawing (**P**) per week=**1Credit** **2-**hours Skill Development Actives **(SDA)** per week = **1 Credit**	04-Credits (IC) are to be designed for 40 hours' theory and 12-14 hours of practical sessions 03-Credits courses are to be designed for 40 hours of Teaching-Learning Session 02- Credits courses are to be designed for 25 hours of Teaching-Learning Session 01-Credit courses are to be designed for 12-15 hours of Teaching-Learning sessions

Student's Induction Program: Motivating (Inspiring) Activities under the Induction program – The main aim of the induction program is to provide newly admitted students a broad understanding of society, relationships, and values. Along with the knowledge and skill of his/her study, students' character needs to be nurtured as an essential quality by which he/she would understand and fulfill the responsibility as an engineer. The following activities are to be covered in 21 days. Physical Activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to Local areas, Familiarization with Department/Branch and Innovation, etc.

AICTE Activity Points to be earned by Students admitted to the BE/B.Tech./B.Plan day college programs are required to earn AICTE Activity Points in addition to fulfilling academic requirements, as outlined in Chapter 6 of the AICTE Model Internship Guidelines. Every regular student enrolled in the 4-year degree program must earn **100 Activity Points**, while students entering through lateral entry into the second year must earn **75 Activity Points** for the award of the degree. Students who transfer from other universities into the fifth semester are required to earn **50 Activity Points**, starting from the year of their entry into VTU. The earned Activity Points will be reflected in the student's **8th Semester Grade Card**. These activities may be undertaken at any time during the semester, including weekends and holidays, and can be spread out over the course of the program according to the student's convenience. However, the **minimum hours required for each activity must be fulfilled**. Activity Points are **non-credit**, do **not affect the SGPA or CGPA**, and are **not required for vertical progression**. In case a student fails to earn the prescribed number of Activity Points, the **8th Semester Grade Card will be issued only after the required points are earned**.

Applied Mathematics					**(ESC-I)Engineering Science Courses-I**				**(PLC)Programming Language Courses**				
Code		**L**	**T**	**P**	**Code**	**Title**	**L**	**P**	**Code**	**Title**	**L**	**T**	**P**
25BMACS101	Calculus and Linear algebra	3	2	0	**25BESC104A**	Building Sciences & Mechanic	3	0	**25BPLC105A**	Introduction to Python Programming	3	0	0
25BMAEC101	Differential Calculus and Linear algebra	3	2	0	**25BESC 104B**	Introduction to Electrical Engineering	3	0	**25BPLC105B**	Introduction to C++ Programming	3	0	0
25BMAME101	Differential Calculus and Linear algebra	3	2	0	**25BESC 104C**	Introduction to Electronics & Communication Engineering	3	0	**25BPLC105C**	Introduction to Web Programming	3	0	0
Applied Chemistry					**25BESC 104D**	Introduction to Mechanical Engineering	3	0	**(PLC)Programming Language Courses Labs**				
25BCHCS102	Applied Chemistry for Smart Systems (CSE)	3	0	2	**25BESC 104E**	Essentials of Information Technology	3	0					
25BCHEC102	Applied Chemistry for Emerging Electronics and Futuristic Devices (EEE, ECE)	3	0	2	**25BESC 104F**	Introduction to Linux	3	0	**25BPLL109A**	Introduction to Python Programming Lab	0	0	2
25BCHME102	Applied Chemistry for Advanced Metal Protection and Sustainable Energy Systems (ME)	3	0	2	**25BESC 104G**	Introduction to Engineering Mechanics	3	0	**25BPLL109B**	Introduction to C++ Programming Lab	0	0	2
					25BESC 104H	Introduction to Cyber Security	3	0	**25BPLL109C**	Introduction to Web Programming Lab	0	0	2

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Scheme of Teachingandexaminations-2025

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(CBCS) (Effective from the academic year2025-26)

I Semester **(For students attending under Physics Group)**

Sl.No	Course and course code		Course title	Course category	TD/PSB	Teaching Hours/Week				Examination				Credits
						Theory Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks	Total **Mark**	
						L	T	P	S					
1	*ASC	25BMAXX101	Applied Mathematics -I	CORE	Maths Dept.	3	2	0	0	03	50	50	100	04
2	#ASC (IC)	25BPHXX102	Applied Physics	IPCC	Physics Dept.	3	0	2	0	03	50	50	100	04
3	ESC	25BCED103X	Computer-Aided Engineering Drawing	IPCC	Mechanical Engg. Dept.	3	0	0	0	03	50	50	100	03
4	ESC-I	25BESC104X	Engineering Science Course-I	CORE	Respective Engg. Dept.	3	0	0	0	03	50	50	100	03
5	PSC	25BPSC105X	Program Specific Courses	CORE	Any Dept.	3	0	0	0	03	50	50	100	03
6	AEC (NCMC)	25BSDAK106	Soft Skills	AEC	Humanities Dept.	0	0	0	2	02	100	--	100	PP
7	PSC	25BPSL107X	Program Specific Course Lab	PSC-Lab	Respective Engg. Dept.	0	0	2	0	02	50	50	100	01
8	AEC/SDC	25BIDTK108	Interdisciplinary Project-Based Learning	AEC	Any Dept.	0	0	0	2	01	50	50	100	01
9	HSMS	25BKSKK109/ 25BKBKK109	Samskrutika Kannada/ Balake Kannada	HSMC	Humanities Dept.	1	0	0	0	01	50	50	100	01
					TOTAL						500	400	900	20

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Applied Mathematics -I					**ESC-I: Engineering Science Courses-I**					**PSC: Program Specific Courses**				
Code	Title	L	T	P	Code	Title	L	T	P	Code	Title	L	T	P
25BMACS101	Calculus and Linear algebra	3	2	0	25BESK104A	Building Sciences & Mechanic	3	0	0	25BPSC105A	Engineering Mechanics	3	0	0
25BMAEC101	Differential Calculus and Linear algebra	3	2	0	25BESK104B	Introduction to Electrical Engineering	3	0	0	25BPSC 105B	Elements of Mechanical Engineering	3	0	0
25BMAME101	Differential Calculus and Linear algebra	3	2	0	25BESK104C	Introduction to Electronics & Communication Engineering	3	0	0	25BPSC 105C	Basics of Electrical Engineering	3	0	0
Applied Physics					25BESK104D	Introduction to Mechanical Engineering	3	0	0	25BPSC 105D	Fundamentals of Electronics & Communication Engineering	3	0	0
25BPHCS102	Quantum Physics and Applications	3	0	2	25BESK104E	Essentials of Information Technology	3	0	0	25BPSC 105E	Principles of Programming Using C	3	0	0
25BPHEC102	Quantum Physics and Electronic Sensors	3	0	2	25BESK104F	Introduction to Linux	3	0	0	**PSC Lab: Program Specific Courses LAB**				
25BPHME102	Physics of Materials	3	0	2	25BESK104G	Introduction to Engineering Mechanics	3	0	0	25BPSL107A	Mechanics & Material Lab	0	0	2
CAED: Computer-Aided Engineering Drawing					25BESK104H	Introduction to Cyber Security	3	0	0	25BPSL107B	Elements of Mechanical Engineering Lab	0	0	2
25BCED103A	Computer-Aided Engineering Drawing for CSE stream	2	0	2						25BPSL107C	Basics of Electrical Engineering Lab	0	0	2
25BCED103B	Computer-Aided Engineering Drawing for ECE stream	2	0	2						25BPSL107D	Fundamentals of Electronics & Communication Engineering Lab	0	0	2
25BCED103C	Computer-Aided Engineering Drawing for ME stream	2	0	2						25BPSL107E	C-Programming Lab	0	0	2