Trinity College of Engineering and Research, Pune

First Year- Bachelor of Technology (F.Y.B.Tech)

The journey of a thousand miles begins with one step

Curriculum & Syllabi
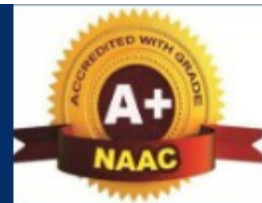# [W.e.f.A.Y.2025-26]

K J's EDUCATIONAL INSTITUTES

Trinity College of Engineering and Research, Pune

(An Autonomous Instutute Affiliated with Savitribai Phule Pune University)
Accredited by NAAC with 'A+' Grade in Cycle-II

VISION AND MISSION OF THE COLLEGE

To be a premier knowledge center for socio-economic development

To provide education that combines rigorous academics with joy of discovery through sustained efforts and dynamic strategies in building innovative, participatory, problem based learning practices and research that leads to capacity building of students

K J's EDUCATIONAL INSTITUTES

Trinity College of Engineering & Research, Pune, Maharashtra, India

Accredited NAAC Grade 'A+'

Approved by AICTE, Government of Maharashtra &

Affiliated to Savitribai Phule Pune University, Pune,

Maharashtra, India

Faculty of Science and Technology

National Education Policy (NEP)-2020 Compliant Curriculum

F. Y. B. Tech. (2025 Pattern)

(With effect from Academic Year 2025-26)

NEP 2020 Compliant Curriculum Structure
F. Y. B. Tech. (2025 Pattern)

Course Code	Course Type	Course Name	Teaching Scheme (Hrs./week)			Examination Scheme and Marks					Credits			
			Theory	Tutorial	Practical	CIE	ESE	Term work	Practical	Oral	Theory	Tutorial	Practical	Total
Semester I														
BSCF101	Basic Science Course	Linear Algebra and Differential calculus	3	1	-	40	60	25	-	-	3	1	-	4
BSCF103/ BSCF105	Basic Science Course	Applied Physics / Applied Chemistry	2	-	-	40	60	-	-	-	2	-	-	2
BSCF104/ BSCF106		Applied Physics Lab/Applied Chemistry Lab	-	-	2	-	-	25	-	-	-	-	1	1
ESCF111	Engineering Science Course	Basics of Programming Languages	3	-	-	40	60	-	-	-	3	-	-	3
ESCF112		Basics of Programming Languages Lab	-	-	2	-	-	25	-	-	-	-	1	1
ESCF113/ ESCF115	Engineering Science Course	Engineering Mechanics and Building Structure /Engg Graphics and CAD	2	-	-	40	60	-	-	-	2	-	-	2
ESCF114/ ESCF116		Engineering Mechanics and Building Structure Lab /Engg Graphics and CAD Lab	-	-	2	-	-	25	-	-	-	-	1	1
ESCF117/ESCF119	Engineering Science Course	Basics of Electronics Technology /Basics of Electrical Technology	2	-	-	40	60	-	-	-	2	-	-	2
ESCF118/ ESCF120		Basics of Electronics Technology Lab / Basics of Electrical Technology Lab	-	-	2	-	-	25	-	-	-	-	1	1
VSECF141/VSECF142	Vocational and Skill Enhancement Course	Workshop practices/Design Thinking and Idea Lab	-	-	2	-	-	50	-	-	-	-	1	1
HSSMF143	Ability Enhancement Course	Professional Communication Skills	1	2	-	-	-	50	-	-	1	2	-	3
LLCF145	Co-Curricular Course	Co-Curricular-I	-	-	2	-	-	25	-	-	-	-	1	1
Total			**13**	**03**	**12**	**200**	**300**	**250**	**-**	**-**	**13**	**03**	**06**	**22**

NEP 2020 Compliant Curriculum Structure
F. Y. B. Tech. (2025 Pattern)

Course Code	Course Type	Course Name	Teaching Scheme (Hrs./week)			Examination Scheme and Marks					Credits			
			Theory	Tutorial	Practical	CIE	ESE	Term work	Practical	Oral	Theory	Tutorial	Practical	Total
Semester II														
BSCF102	Basic Science Course	Integral calculus	3	1	-	40	60	25	-	-	3	1	-	4
BSCF105/ BSCF103	Basic Science Course	Applied Chemistry / Applied Physics	2	-	2	40	60	-	-	-	2	-	1	2
BSCF106/ BSCF104		Applied Chemistry Lab /Applied Physics Lab	-	-	2	-	-	25	-	-	-	-	25	1
ESCF121	Engineering Science Course	Artificial Intelligence and Programming	2	-	-	40	60	-	-	-	2		1	2
ESCF122		Artificial Intelligence and Programming Lab	-	-	2	-	-	25	-	-	-	-	1	1
ESCF115/ESCF 113	Engineering Science Course	Engg Graphics and CAD/Engineering Mechanics and Building Structure	2	-	-	40	60	-	-	-	2	-	1	2
ESCF116/ ESCF114		Engg Graphics and CAD Lab/Engineering Mechanics and Building Structure Lab	-	-	2	-	-	25	-	-	-	-	1	1
ESCF119/ESCF 117	Engineering Science Course	Basics of Electrical Technology /Basics of Electronics Technology	2	-	2	40	60	25	-	-	2	-	1	2
ESCF120/ESCF 118		Basics of Electrical Technology Lab /Basics of Electronics Technology Lab	-	-	2	-	-	25	-	-	2	-	1	1
PCCF133/ PCCF135	Program Core Course	Sensors and Electronic Systems/Open Source Operating System Programming	1	-	-	-	-	-	-	-	1	-	-	1
PCCF134/ PCCF136		Sensors and Electronic Systems Lab/Open Source Operating System Programming Lab	-	-	2	-	-	25	-	-	1	-	1	1

Course Code	Course Type	Course Name												
VSECF142/VSECF141	Vocational and Skill Enhancement Course	Design Thinking and Idea Lab/ Workshop practices	-	-	2	-	-	50	-	-	-	-	1	1
HSSMF144	IKS	Indian Knowledge System	-	2	-	-	-	25	-	-	-	2	-	2
LLCF146	Co-Curricular Course	Co-Curricular-II	-	-	2	-	-	25	-	-	-	-	1	1
Total			**12**	**03**	**14**	**200**	**300**	**250**	**-**	**-**	**12**	**03**	**07**	**22**