

An Autonomous Institute



Shree Warana Vibhag Shikshan Mandal's

**Tatyasaheb Kore Institute of
Engineering And Technology,
Warananagar**

NBA Accredited Institute

Department of Computer Science and Business Systems

**F. Y. B.Tech Computer Science and Business Systems
2024-25**

B.Tech.Computer Science and Business Systems
Syllabus Structure and Curriculum under Autonomy

First Year B.Tech in Computer Science and Business Systems
Syllabus Structure under Autonomous Status of TKIET, Warananagar
2024-25



Department of Computer Science and Business System

Vision

To be a leading Computer Science & Business Systems department recognized for excellence in technical and management education, fostering innovation, academic flexibility, industry readiness, and a commitment to professional ethics, shaping future leaders who drive sustainable development and societal progress.

Mission

- ❖ To continuously implement a dynamic and adaptable curriculum.
- ❖ To enhance industry-institute collaboration to effectively promote internships, improve employability, and foster entrepreneurial skills among students.
- ❖ To cultivate an environment that inspires faculty and students to actively participate in impactful academic and research pursuits.
- ❖ To expand access to quality education for rural and underprivileged sections of society.
- ❖ To instill a commitment to lifelong learning enriched with human values, social responsibility.

Program Educational Objectives (PEOs)

Graduates will be,

- ❖ To design and develop computing systems by integrating modern technologies and addressing business intelligence challenges.
- ❖ To acquire capabilities for pursuing higher education and entrepreneurship with a strong aptitude for innovation
- ❖ To function effectively as professionals with excellent interpersonal skills, upholding ethical and social responsibilities
- ❖ To lead in their respective domains and contribute positively to societal needs, working efficiently in multidisciplinary and multicultural environments.

Quality Policy

- ❖ To promote excellence in academic and training activities by inspiring students for becoming competent professionals to cater industrial and social needs.





Program Outcomes (POs)

Engineering Graduates will be able to:

- 1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- 3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- 4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- 6. The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- 7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.





11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Abbreviations

Sr.No.	Acronym	Definition
1	ISE	In-Semester Examination
2	ISE-I	In-Semester Examination-I
3	ISE-II	In-Semester Examination-II
4	ESE	End Semester Examination
5	ISA	In-Semester Assessment (Term Work)
6	L	Lecture
7	T	Tutorial
8	P	Practical
9	CH	Contact Hours
10	C	Credit

Course Categories

Sr.No.	Acronym	Definition
1	BSC	Basic Science Course
2	ESC	Engineering Science Course
3	PCC	Program Core Courses
4	HSSM	Humanities Social Science and Management
4	VSEC	Vocational and Skill Enhancement Course
5	CC	Co-curricular course

Course/ Subject Code for Theory and Practical

2	4	UG	CB	BSC/ESC/PCC/ HSSM/VSEC/CC	1	0	1	T/P
Course Introduced Year	Under Graduate	Program Code	Course Category	Semester	Course Number	T-Term work P-POE		



**Department of Computer Science and Business System****First Year B.Tech Semester-I****Academic Year 2024-25****Scheme Curriculum Structure, Credit Scheme and Evaluation**

Course Code	Category	Course Title	Teaching Scheme					Examination & Evaluation Scheme			
			L	T	P	C	CH	Component	Marks	Min for Passing	
24UGCBESC101	ESC	Discrete Mathematics	3	--	--	3	3	ESE	60	24	40
								ISE	40	16	
24UGCBBSC102	BSC	Introductory Topics in Statistics, Probability and Calculus	3	1	--	4	4	ESE	60	24	40
								ISE	40	16	
24UGCBESC103	ESC	Fundamentals of Computer Science	3	--	--	3	3	ESE	60	24	40
								ISE	40	16	
24UGCBESC104	ESC	Principles of Electrical Engineering	2	--	--	2	2	ESE	60	24	40
								ISE	40	16	
24UGCBBSC105	BSC	Physics for Computing Science	2	--	--	2	2	ESE	60	24	40
								ISE	40	16	
24UGCBHSM106	HSSM	Business Communication & Value Science – I	1	--	--	1	1	ESE	50	20	20
24UGCBESC103LP	ESC	Fundamentals of Computer Science Lab	--	--	2	1	2	ISA	25	10	30
								POE	50	20	
24UGCBBSC104LP	BSC	Principles of Electrical Engineering Lab	--	--	2	1	2	ISA	25	10	20
								POE	50	20	
24UGCBESC105LP	ESC	Physics for Computing Science Lab	--	--	2	1	2	ISA	25	10	10
24UGCBHSM106LP	HSSM	Business Communication & Value Science – I Lab	--	--	2	1	2	ISA	25	10	10
24UGCBVSE107T	VSEC	Skill Based Course I- (Computer Aided Publishing)	--	--	2	1	2	ISA	25	10	10
24UGCBCC108T	CC	Co-Curriculum Course-I	--	--	2	1	2	ISA	25	10	10
			14	01	12	21	27	--	800	---	--





Shree Warana Vibhag Shikshan Mandal's

Tatyasaheb Kore Institute of Engineering & Technology



Warananagar, Tal- Panhala, Dist- Kolhapur -416 113, Maharashtra

Department of Computer Science and Business System

First Year B.Tech Semester- II

Academic Year 2024-25

Scheme Curriculum Structure, Credit Scheme and Evaluation

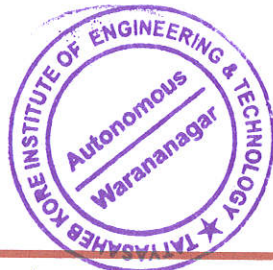
Course Code	Category	Course Title	Teaching Scheme					Examination & Evaluation Scheme			
			L	T	P	C	CH	Component	Marks	Min for Passing	
24UGCBBS201	BSC	Linear Algebra	3	1	--	4	4	ESE	60	24	40
								ISE	40	16	
24UGCBBS202	BSC	Statistical Methods	3	--	--	3	3	ESE	60	24	40
								ISE	40	16	
24UGCBES203	ESC	Data Structures And Algorithms	3	--	--	3	3	ESE	60	24	40
								ISE	40	16	
24UGCBES204	ESC	Principles of Electronics Engineering	2	--	--	2	2	ESE	60	24	40
								ISE	40	16	
24UGCBPCC205	PCC	Fundamentals of Economics	2	--	--	2	2	ESE	60	24	40
								ISE	40	16	
24UGCBHSM206	HSSM	Business Communication & Value Science – II	2	--	--	2	2	ESE	50	20	30
								ISE	25	10	
24UGCBBS202LP	BSC	Statistical Methods Lab	--	--	2	1	2	ISA	25	10	10
24UGCBES203LP	ESC	Data Structures And Algorithms Lab	--	--	2	1	2	ISA	25	10	30
								POE	50	20	
24UGCB ESC204LP	ESC	Principles of Electronics Engineering Lab	--	--	2	1	2	ISA	25	10	30
								POE	50	20	
24UGCBHSSM206LP	HSSM	Business Communication & Value Science II-Lab	--	--	2	1	2	ISA	25	10	40
24UGCBVSEC207T	VSEC	Web Designing	--	--	2	1	2	ISA	25	10	20
			15	1	10	21	26	--	800	----	--

Head of the Department
(CSBS)

Chairman BoS
(F.Y. B.Tech)

Dean
Academics

Chairman
Academic Council



Dean, Academic
Tatyasaheb Kore Institute of Engg.
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Warananagar, Dist. Kolhapur