B.Tech (CS) Course Structure

Semester I	Semester II	Semester III	Semester IV	Semester V	Semester VI	Semester VII	Semester VIII
Introduction to programming	Data Structures	Advanced Programming Language	Database Management System	Computer Networks	Elective II	Elective IV	
Fundamentals of Electronics Engineering	Digital Logic Design	Computer Organization	Operating System	Software Engineering	Elective III	Elective V	
Linear Algebra	Probability & Statistics	Discrete Mathematics	Differential equations & Numerical Methods	Elective I			
Systems Management	Principles of Communication Engineering	Calculus	Design and Analysis of Algorithms				
Professional Communication-I	Professional Communication-II	Theory of Computation	Advanced Computer Architecture	Professional Ethics			

Note: The current pool of electives depends on the availability of the current faculty strength and specializations, which may be appended later.

Pool of Electives
To run the course there must be atleast 15 students

Elective I 1. Convex Optimization 2. Statistical Learning Theory 3. Pattern Recognition 4. Information Retrieval 5. Advanced Data Analytics 6. Natural Language Processing 7. Artificial Intelligence 8. Soft Computing	**Elective II** 1. Computer Vision 2. Visual Recognition 3. Biometrics 4. Pattern Recognition 5. Data Compression 6. Document Image Analysis
Elective III 1. Virtual Reality 2. Advanced Graphics & Animation 3. Pattern Recognition 4. Computer Vision 5. Soft Computing 6. Principles of Interaction Design	**Elective IV** 1. Intrusion Detection System 2. Principles of Cyber Security 3. Information Security & Management 4. Database Security 5. Hardware Security
Elective V 1. Cognition & Cognitive Processes Modeling 2. Wireless Sensor Networks 3. Wireless Networks 4. Internet Of Things 5. Computer Forensics 6. Blockchain & Cryptocurrency	