

Course Curriculum Framework

Name of Program BTECH (Information Technology) OJT Starting 6th Semester

Type of Course Sem	Major Core					Skill Component					Audit Course
	Discipline Core 1 & 2	Discipline Core 3 & 4	Discipline Core 5	Discipline Elective 1	Discipline Elective 2	Skill Enhancement	Ability Enhancement	Value Added Courses	Multi-disciplinary	OJT	
Semester I	1. Discrete Mathematics (4) 2. Programming Language (2)	3. Information Technology Essentials (2) 4. Web Technologies + Certiport Certification (2)	5. Basics of Electrical & Electronics Engg (2)	--	--	1. Engg Graphics and CAD Lab (2) 2. Programming Language – Lab (2)	1. Engg Graphics and CAD (2) 2. Electrical and Electronics Engg Lab (2)	--	--		Environmental Science and Engg (0)
Semester II	1. Engg Mathematics - Module I - Linear Algebra, Module II - Probability and Statistics (4) 2. Theory of computing (2)	3. Data Structures and Algorithms (2) 4. Database System Concepts (2)	5. Computer Architecture (2)	--	--	1. Database System Lab + SQL Certification (2) 2. Physical computing Lab (2)	A. Computer Networks (2) B. DS and CN Lab (2)	Climate Change and Carbon Credits/ (1)			Universal Human Values (0)
Exit UG Certificate											
Semester III	1. Object-Oriented Analysis and Design (2) 2. Operating Systems (Desktop, Mobiles) (2)	--	--	A. Operating Systems administration with Certification (4) B. Java programming with Certification (4)	A. Computer Network administration and Security (3) B. IoT - Fundamentals - Smart Sensors and DAQ (3)	1. Capstone Project on Discipline Elective I and II (2)	1. OOAD and OS Lab (2)	A. Foreign Language I – French / German/ Japanese (1)	1. Organizational Behaviour (2) 2. Financial Literacy(2)	--	Communication and Personality Development - I (0)

Semester IV	1. Software Engg and Agile Methodology (2) 2. Fundamentals of Data Science with Certification (3)	--	--	A. Penetration Testing(4) B. IOT - Interfacing and Programming (4)	A. Java programming(3) B. Wireless sensor network (3)	Capstone Project on Discipline Elective 1 and II (2)	Software Engg and Data Science Lab (2)	A. Foreign Language II – French / German/ Japanese (1)	1. MIS (case study based) (2) 2. Intellectual property Rights (IPR) (2)	--	Communication and Personality Development – II (0)
Diploma in Information Technology											
Semester V	1. Compiler Construction (3) 2. UI / UX Design (3)			A. Incident Response and Threat Intelligence with Certification (4) B. IoT on Cloud and Certification (4)	A. Web and Cloud security (3) B. Instrumentation and Control in IoT applications (3)	Project (2)	Cloud Infra Fundamentals AWS Certification (2)	A. Foreign Language III – French / German/ Japanese (1)	Design Thinking and Innovation (2)		Communication and Personality Development - III (0)
Semester VI	--	--	--	--	--	--	Robotics and Automation with Certification (4)	(1)	--	OJT (16)	A. Constitution of India (0) B. Entrepreneurship (0)
BVoc. in Information Technology											
Semester VII	--	--	--	--	--	--	Research Methodology (2)		Industrial Psychology (2)	OJT (16)	A. Disaster Management (0) B. Entrepreneurship (0)
Semester VIII	--	--	--	--	--	--	Software Project Management with Certification (4)	(1)	--	OJT (16)	EEnglish for research paper writing(0) Ethics (0)
BTech in Information Technology											