

Curriculum Structure

Semester I								
Type	Code	Course Title	WCH L-T-P			Credits L-T-P		
THEORY								
BS	BTBS-T-BS-005	Engineering Mathematics-I	3	0	0	3	0	0
BS	BTBS-T-BS-002/ BTBS-T-BS-006	Engineering Chemistry/ Engineering Physics	3	0	0	3	0	0
ES	BTEC-T-ES-001/ BTEE-T-ES-001	Basic Electronics Engineering/ Basic Electrical Engineering	2	0	0	2	0	0
ES	BTCS-T-ES-001	Computer Programming	3	0	0	3	0	0
MC	BTBS-T-MC-001/ BTBS-T-MC-008	Constitution of India/ Environmental Science & Engineering	2	0	0	0	0	0
PRACTICAL								
BS	BTBS-P-BS-003/ BTBS-P-BS-007	Engineering Chemistry Lab/ Engineering Physics Lab	0	0	2	0	0	1
ES	BTBS-P-ES-009/ BTBS-P-ES-004	Manufacturing Practices/ Engineering Graphics	0	0	2	0	0	1
ES	BTEC-P-ES-002/ BTEE-P-ES-002	Basic Electronics Engineering Lab/ Basic Electrical Engineering Lab	0	0	2	0	0	1
ES	BTCS-P-ES-002	Computer Programming Lab	0	0	4	0	0	2
		SUB-TOTAL	13	0	10	11	0	5
		TOTAL	23			16		

Semester II								
Type	Code	Course Title	WCH L-T-P			Credits L-T-P		
THEORY								
BS	BTBS-T-BS-013	Engineering Mathematics-II	3	0	0	3	0	0
BS	BTBS-T-BS-006/ BTBS-T-BS-002	Engineering Physics/ Engineering Chemistry	3	0	0	3	0	0
ES	BTEE-T-ES-001/ BTEC-T-ES-001	Basic Electrical Engineering/ Basic Electronics Engineering	2	0	0	2	0	0
ES	BTCS-T-ES-003	Data Structures & Algorithms	3	0	0	3	0	0
MC	BTBS-T-MC-008/ BTBS-T-MC-001	Environmental Science & Engineering/ Constitution of India	2	0	0	0	0	0
HS	BTBS-T-HS-099	Communicative & Technical English	2	0	0	2	0	0
PRACTICAL								
BS	BTBS-P-BS-007/ BTBS-P-BS-003	Engineering Physics Lab/ Engineering Chemistry Lab	0	0	2	0	0	1
ES	BTBS-P-ES-004/ BTBS-P-ES-009	Engineering Graphics/ Manufacturing Practices	0	0	2	0	0	1
ES	BTEE-P-ES-002/ BTEC-P-ES-002	Basic Electrical Engineering Lab/ Basic Electronics Engineering Lab	0	0	2	0	0	1
ES	BTCS-P-ES-004	Data Structures & Algorithms Lab	0	0	4	0	0	2
HS	BTBS-P-HS-011	Communicative & Technical English Lab	0	0	2	0	0	1
		SUB-TOTAL	15	0	12	13	0	6
		TOTAL	27			19		

Semester III								
Type	Code	Course Title	WCH L-T-P			Credits L-T-P		
THEORY								
BS	BTBS-T-BS-017	Mathematics-III for Computer Sciences	3	1	0	3	1	0
BS	BTBS-T-BS-014	Biology for Engineers	3	0	0	3	0	0
ES	BTCS-T-ES-005	OOP Using Java	3	0	0	3	0	0
ES	BTEC-T-ES-003	Digital Electronics	3	0	0	3	0	0
ES	BTBS-T-ES-013	Basics of Mechanical Engineering	3	1	0	3	1	0
PC	BTCS-T-PC-007	Computer Organization & Architecture	3	0	0	3	0	0
PRACTICAL								
ES	BTCS-P-ES-006	OOP Using Java Lab	0	0	2	0	0	1
ES	BTEC-P-ES-004	Digital Electronics Lab	0	0	2	0	0	1
PC	BTCS-P-PC-008	Computer Organization & Architecture Lab	0	0	2	0	0	1
HS	BTBS-P-HS-012	Corporate Communication Lab	0	0	2	0	0	1
PJ	BTII-P-PJ-001	Summer Internship - I	0	0	0	0	0	1
		SUB-TOTAL	18	2	8	18	2	5
		TOTAL	28			25		

Semester IV								
Type	Code	Course Title	WCH L-T-P			Credits L-T-P		
THEORY								
BS	BTBS-T-BS-018	Mathematics-IV for Computer Sciences	3	1	0	3	1	0
HS	BTBS-T-HS-018	Engineering Economics	3	0	0	3	0	0
PC	BTCS-T-PC-011	Design & Analysis of Algorithms	3	1	0	3	1	0
PC	BTCS-T-PC-009	Database Management Systems	3	1	0	3	1	0
PC	BTCS-T-PC-016	Operating Systems	3	0	0	3	0	0
PE		Professional Elective - I	3	0	0	3	0	0
PRACTICAL								
PC	BTCS-P-PC-013	Design & Analysis of Algorithms Lab	0	0	2	0	0	1
PC	BTCS-P-PC-010	Database Management Systems Lab	0	0	4	0	0	2
PC	BTCS-P-PC-017	Operating Systems Lab	0	0	2	0	0	1
		SUB-TOTAL	18	3	8	18	3	4
		TOTAL	29			25		

Semester V								
Type	Code	Course Title	WCH L-T-P			Credits L-T-P		
THEORY								
PC	BTCS-T-PC-013	Computer Networks	3	0	0	3	0	0
PC	BTCS-T-PC-015	Formal Languages & Automata Theory	3	0	0	3	0	0
PC	BTCS-T-PC-022	Machine Learning	3	1	0	3	1	0
PE		Professional Elective - II	3	0	0	3	0	0
PE		Professional Elective - III	3	0	0	3	0	0
MC	BTBS-T-MC-020	Universal Human Values & Professional Ethics	2	0	0	0	0	0
PRACTICAL								
HS	BTBS-P-HS-021	Soft Skills & Inter-Personal Skills Lab	0	0	4	0	0	2
PC	BTCS-P-PC-014	Computer Networks Lab	0	0	2	0	0	1
PC	BTCS-P-PC-021	Internet & Web Technology Lab	0	0	4	0	0	2
PJ	BTCS-P-PJ-025	Skill Lab & Project - I	0	0	4	0	0	2
PJ	BTII-P-PJ-002	Summer Internship - II	0	0	0	0	0	1
		SUB-TOTAL	17	1	14	15	1	8
		TOTAL	32			24		

Semester VI								
Type	Code	Course Title	WCH L-T-P			Credits L-T-P		
THEORY								
PC	BTCS-T-PC-026	Software Engineering	3	0	0	3	0	0
PC	BTCS-T-PC-020	Compiler Design	3	0	0	3	0	0
PC	BTCS-T-PC-056	Internet of Things	3	0	0	3	0	0
PE		Professional Elective - IV	3	0	0	3	0	0
PE		Professional Elective - V	3	0	0	3	0	0
PE		Professional Elective - VI	3	0	0	3	0	0
PRACTICAL								
PC	BTCS-P-PC-027	Software Engineering Lab	0	0	2	0	0	1
PC	BTCS-P-PC-056	Internet of Things Lab	0	0	2	0	0	1
PE	BTCS-P-PE-023 / BTBS-P-PE-024	Emerging Technologies Lab / Entrepreneurship Project	0	0	4	0	0	2
MC	BTBS-P-MC-018	Yoga / NSS / NCC	0	0	2	0	0	0
		SUB-TOTAL	18	0	10	18	0	4
		TOTAL	28			22		

List of Electives

Code	Elective # and Subjects
Professional Elective - II	
BTBS-T-PE-035	Statistical Inference
BTCS-T-PE-047	Mobile Computing
BTCS-T-PE-048	Realtime Systems
BTCS-T-PE-049	Advanced Computer Architecture
Professional Elective - III	
BTCS-T-PE-045	Data Mining & Data Warehousing
BTCS-T-PE-050	Wireless Sensor Networks
BTCS-T-PE-051	Distributed Databases
Professional Elective - IV	
BTCS-T-PE-052	Natural Language Processing
BTCS-T-PE-053	Cloud Computing
BTCS-T-PE-054	Parallel & Distributed Systems
BTCS-T-PE-024	Microcontrollers & Embedded Systems
Professional Elective - V	
BTCS-T-PE-055	Advanced Machine Learning
BTCS-T-PE-028	Computer Graphics
BTCS-T-PE-057	Server Side Scripting
Professional Elective - VI	
BTCS-T-PE-058	Big Data Analytics
BTCS-T-PE-059	Cryptography & Network Security
BTCS-T-PE-061	Cyber Security & Forensics

Curriculum Structure (Regular)

Semester VII									
Type	Code	Course Title	WCH L-T-P			Credits L-T-P			
THEORY									
HS	BTBS-T-HS-022	Fundamentals of Management	3	0	0	3	0	0	
PC	BTCS-T-PC-031	Soft Computing	3	0	0	3	0	0	
OO		MOOC - I	0	0	0	3	0	0	
PRACTICAL									
PC	BTCS-P-PC-032	Soft Computing Lab	0	0	2	0	0	1	
PJ	BTII-P-PJ-003	Summer Internship - III	0	0	0	0	0	1	
		SUB-TOTAL	6	0	2	9	0	2	
		TOTAL	8			11			

Semester VIII								
Type	Code	Course Title	WCH L-T-P			Credits L-T-P		
THEORY								
OE		Open Elective - I	3	0	0	3	0	0
OE		Open Elective - II	3	0	0	3	0	0
OO		MOOC - II	0	0	0	3	0	0
PRACTICAL								
PJ	BTCS-P-PJ-035	Presentation Skills & Technical Seminar	0	0	4	0	0	2
PJ	BTCS-P-PJ-036	Project - II	0	0	16	0	0	8
VV	BTCS-P-VV-033	Comprehensive Viva	0	0	0	0	0	1
		SUB-TOTAL	6	0	20	9	0	11
		TOTAL	26			20		
		GRAND TOTAL (8 SEMESTERS)	201			162		

Note:

1. Approved list of courses for MOOC-I & II (self study) shall be published by the department.
2. Courses offered under each elective are given in "List of Electives" on Page 189.