

Semester I

Semester-1	L-T-P-C
Introduction to ICT	1-0-2-2
Language and Literature	3-0-0-3
Calculus	3-1-0-4
Introduction to Programming	3-0-0-3
Programming Lab	0-0-2-1
Basic Electronic Circuits	3-0-2-4
Co-curricular Activities-1	0-0-2-1
TOTAL	17

Semester II

Semester-2	L-T-P-C
Approaches to Indian Society	3-0-0-3
Discrete Mathematics	3-1-0-4
Digital Logic and Computer Organization	3-0-2-4
Data Structures	3-0-0-3
Data Structures Lab using OOP	1-0-2-2
Electromagnetic Theory	3-1-0-4
Exploratory Project 1	0-1-0-1
Co-curricular Activities-2	0-0-2-1
TOTAL	20

Semester III

Semester-3	L-T-P-C
Science, Technology, Society	3-0-0-3
Linear Algebra	3-1-0-4
Design and Analysis of Algorithms	3-1-0-4
Computer Systems Programming	3-0-2-4
Signal and Systems	3-0-2-4
Exploration Project 2	0-0-2-1
Co-curricular Activities-3	0-0-2-1
TOTAL	19

Semester IV

Semester-4	L-T-P-C
Principles of Economics	3-0-0-3
Probability and Statistics	3-1-0-4
Database Management System	3-0-2-4
Embedded Hardware Design	3-0-2-4
Introduction to Communication Systems	3-0-2-4
Honours-1 (elective course)	3-0-2-3
Co-curricular Activities-4	0-0-2-1
TOTAL	19+3

Semester V

Semester-5	L-T-P-C
Software Engineering	3-0-2-4
Digital Communications	3-0-2-4
Computer Networks	3-0-2-4
ICTE-1	3-0-2-4
TE-1	3-0-0-3
Honours-2 (elective course)	3-0-0-3
TOTAL	19+3

Semester VI

Semester-6	L-T-P-C
Environmental Science	3-0-0-3
SE-1	3-0-0-3
ICTE-2	3-0-2-4
TE-2	3-0-0-3
TE-3	3-0-0-3
Honours-3 (elective course)	3-0-0-3
TOTAL	16+3

Semester VII

Semester-7	L-T-P-C
BTP-1	0-1-6-4
ICTE-3	3-0-2-4
TE-4	3-0-0-3
HASSE-1	3-0-0-3
SE-2	3-0-0-3
Honours-4 (elective course)	3-0-0-3
TOTAL	17+3

Semester VIII

Semester-8	L-T-P-C
BTP-2	0-2-12-8
OE-1	3-0-0-3
OE-2	3-0-0-3
Honours-5 (elective course)	3-0-0-3
TOTAL	14+3

ICTE: ICT Elective; TE: Technical Elective; HASSE: Humanities and Social Science Elective; OE: Open Elective; BTP: BTech Project

Representative list of electives

- > Graph Theory and Algorithms
- > Approximation Algorithms
- > Computational Complexity
- > Randomized Algorithms
- > Quantum Computing
- > Introduction to Cryptography
- > Blockchain and Cryptocurrencies
- > Adversarial Machine Learning
- > Machine Learning and Security
- > Introduction to coding theory and Applications
- > Compiler Design
- > Digital Image Processing
- > Internet of Things
- > Digital Signal Processing
- > Statistical Communication
- > Wireless System Design
- > RF and Antenna Engineering
- > Microwave Propagation
- > Control Theory
- > Human Computer Interaction
- > Data Mining and Visualization
- > Human Computer Interaction
- > Natural Language Processing
- > Natural Computing
- > Software Engineering
- > Optimization
- > Computational Financial
- > Modern Algebra
- > Software Project Management
- > Specification and Verification of Systems
- > Models of Computation
- > System and Network Security
- > No SQL Database
- > Web Data Management
- > Speech Technology
- > Deep Learning
- > Recommendation Systems
- > Intro. to AI
- > Intro to Data Science
- > Introduction to Robotics
- > Introduction to Complex Network
- > Stochastic Simulation
- > Computational Number Theory
- > Einstein's Physics
- > Operating Systems
- > Nanoelectronics
- > Introduction to VLSI Circuits
- > Analog IC Design
- > Logic for Computer Science
- > Modern European Philosophy
- > Art: Ideas and Perspectives
- > Human Behaviour Management
- > Culture, Politics, Identity
- > Organisational Behaviour
- > Publics in South Asia: Contemporary Perspectives
- > Systems, Policies and Implications