



School of Computational Intelligence
Department of Computing & Information Systems
B.Tech – Information & Communication Technology
I Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTIC1101	Introduction to ICT	1	0	2	3	2
2.	BTIC1102	Language and Literature	3	0	0	3	3
3.	BTIC1103	Calculus	3	1	0	4	4
4.	BTIC1104	Introduction to Programming	3	0	0	3	3
5.	BTIC1105	Programming Lab	0	0	2	2	1
6.	BTIC1106	Basic Electronic Circuits	3	0	2	5	4
7.	BTIC1107	Co-curricular Activities-1	0	0	2	2	1
TOTAL			13	1	8	22	17

II Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTIC1201	Approaches to Indian Society	3	0	0	3	3
2.	BTIC1202	Discrete Mathematics	3	1	0	4	4
3.	BTIC1203	Digital Logic and Computer Organization	3	0	2	5	4
4.	BTIC1204	Data Structures	3	0	0	3	3
5.	BTIC1205	Data Structures Lab using OOP	1	0	2	3	2
6.	BTIC1206	Electromagnetic Theory	3	1	0	4	4
7.	BTIC1207	Exploration Project	0	1	0	1	1
8.	BTIC1208	Co-curricular Activities-2	0	0	2	2	1
TOTAL			16	3	6	25	20

III Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTIC2101	Science, Technology, Society	3	0	0	3	3
2.	BTIC2102	Linear Algebra	3	1	0	4	4
3.	BTIC2103	Design and Analysis of Algorithms	3	1	0	4	4
4.	BTIC2104	Computer Systems Programming	3	0	2	5	4
5.	BTIC2105	Signal and Systems	3	0	2	5	4
6.	BTIC2106	Exploration Project	0	0	2	2	1
7.	BTIC2107	Co-curricular Activities-3	0	0	2	2	1
		TOTAL	15	2	8	25	19

IV Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTIC2201	Principles of Economics	3	0	0	3	3
2.	BTIC2202	Probability and Statistics	3	1	0	4	4
3.	BTIC2203	Database Management System	3	0	2	5	4
4.	BTIC2204	Embedded Hardware Design	3	0	2	5	4
5.	BTIC2205	Introduction to Communication Systems	3	0	2	5	4
6.	BTIC2206	Co-curricular Activities-4	0	0	2	2	1
		TOTAL	15	1	8	24	19

V Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTIC3101	Software Engineering	3	0	2	5	4
2.	BTIC3102	Digital Communications	3	0	2	5	4
3.	BTIC3103	Computer Networks	3	0	2	5	4
4.	BTIC3104	ICTE-1	3	0	2	5	4
5.	BTIC3105	TE-1	3	0	0	3	3
		TOTAL	15	0	8	23	19

VI Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTIC3201	Environmental Science	3	0	0	3	3
2.	BTIC3202	SE-1	3	0	0	3	3
3.	BTIC3203	ICTE-2	3	0	2	5	4
4.	BTIC3204	TE-2	3	0	0	3	3
5.	BTIC3205	TE-3	3	0	0	3	3
		TOTAL	15	0	2	19	16

VII Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTIC4101	BTP-1	0	1	6	7	4
2.	BTIC4102	ICTE-3	3	0	2	5	4
3.	BTIC4103	TE-4	3	0	0	3	3
4.	BTIC4104	HASSE-1	3	0	0	3	3
5.	BTIC4105	SE-2	3	0	0	3	3
		TOTAL	12	1	8	21	17

VIII Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTIC4201	BTP-2	0	2	12	14	8
2.	BTIC4202	OE-1	3	0	0	3	3
3.	BTIC4203	OE-1	3	0	0	3	3
		TOTAL	6	2	12	20	14

TOTAL NO. OF CREDITS = 141

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
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- 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
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- 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