

CURRICULUM**B.Tech COMPUTER SCIENCE AND BUSINESS SYSTEMS
Regulation 2023 | Total Credits: 165****SEMESTER I
CHOICE BASED CREDIT SYSTEM**

Sl.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSES								
1.	HS23112	Business Communication and Value Science – I	HS	2	2	0	0	2
2.	MA23115	Discrete Mathematics	BS	4	3	1	0	4
3.	MA23114	Probability and Calculus	BS	4	3	1	0	4
4.	GE23117	தமிழர் மரபு / Heritage of Tamils	HS	1	1	0	0	1
LAB ORIENTED THEORY COURSES								
5.	CB23131	Fundamentals of Computer Science	PC	6	2	0	4	4
6.	EE 23131	Principles of Electrical Engineering	ES	4	2	0	2	3
7.	PH23133	Physics for Computing Science	BS	5	3	0	2	4
MANDATORY COURSES								
8.	MC23111	Indian Constitution and Freedom Movement	MC	3	3	0	0	0
TOTAL				29	19	2	8	22

SEMESTER II

Sl.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSES								
1.	MA23211	Linear Algebra	BS	4	3	1	0	4
2.	BA23212	Fundamentals of Economics	MS	2	2	0	0	2
LAB ORIENTED THEORY COURSES								
3.	MA23231	Statistical Modeling	BS	5	3	0	2	4
4.	CB23231	Data Structures and Algorithms	PC	7	2	1	4	5
5.	EC23242	Principles of Electronics	ES	4	2	0	2	3
LABORATORY COURSES								
6.	CS23221	Python Programming Lab	PC	4	0	0	4	2
7.	HS23223	Business Communication and Value Science – II	HS	4	0	0	4	2
MANDATORY COURSES								
8.	GE23217	தமிழரும் தொழில்நுட்பமும் / Tamils and Technology	HS	1	1	0	0	1
TOTAL				31	13	2	16	23

SEMESTER III

Sl.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSES								
1.	CB23311	Formal Language and Automata Theory	PC	3	3	0	0	3
2.	CB23312	Computer Organization and Architecture	PC	3	3	0	0	3
LAB ORIENTED THEORY COURSES								
3.	CB23331	Computational Statistics	PC	5	3	0	2	4
4.	CB23332	Software Engineering	PC	5	3	0	2	4
5.	CB23333	Database Technology	PC	5	3	0	2	4
6.	CS23333	Object Oriented Programming Using Java	PC	7	1	0	6	4
MANDATORY COURSES								
7.	MC23313	Environmental Sciences	MC	3	3	0	0	0
TOTAL				31	19	0	12	22

SEMESTER IV

Sl.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSES								
1.	CB23411	Introduction to Innovation, IP Management and Entrepreneurship	EEC	3	3	0	0	3
2.	BA23412	Fundamentals of Management	MS	2	2	0	0	2
LAB ORIENTED THEORY COURSES								
3.	CB23431	Operating System Concepts	PC	5	3	0	2	4
4.	CB23432	Software Design with UML	PC	4	2	0	2	3
5.	CB23433	Analysis of Algorithms and Design	PC	5	2	1	2	4
6.	MA23437	Optimization Techniques	BS	5	3	0	2	4
LABORATORY COURSES								
7.	HS23421	Business Communication and Value Science – III	HS	4	0	0	4	2
EMPLOYABILITY ENHANCEMENT COURSES								
8.	GE23421	Soft Skills-I	EEC	2	0	0	2	1
TOTAL				30	15	1	14	23

SEMESTER V

Sl.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSES								
1.	BA23511	Principles of Financial Management	MS	2	2	0	0	2
2.		Open Elective I	OE	3	3	0	0	3
LAB ORIENTED THEORY COURSES								
3.	CB23531	Computer Network Technology	PC	5	3	0	2	4
4.	CB23532	Artificial Intelligence	PC	5	3	0	2	4
5.		Elective I	PE	5	2	1	2	4
6.	CB23521	Design Thinking for Innovation in Computer Science and Business Systems	EEC	3	1	0	2	2
EMPLOYABILITY ENHANCEMENT COURSES								
7.	GE23521	Soft Skills- II	EEC	2	0	0	2	1
8.	CB23621	Industrial Project	EEC	0	0	0	0	1
TOTAL				25	13	2	10	21

SEMESTER VI

Sl.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSES								
1.	BA23611	Financial and Cost Accounting	MS	2	2	0	0	2
2.	BA23612	Business Strategy	MS	2	2	0	0	2
LAB ORIENTED THEORY COURSES								
3.	CB23631	Machine Learning	PC	4	2	1	2	4
4.	CB23632	Cloud, Micro services and Application	PC	5	2	1	2	4
5.	CB23633	Usability Design of Software Applications	PC	4	2	0	2	3
6.		Elective II	PE	5	3	0	2	4
LABORATORY COURSES								
7.	HS23621	Business Communication & Value Science – IV	HS	4	0	0	4	2
EMPLOYABILITY ENHANCEMENT COURSES								
8.	GE23622	Problem Solving Techniques	EEC	2	0	0	2	1
TOTAL				29	15	0	14	22

SEMESTER VII

Sl.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY COURSES								
1.		Open Elective - II	OE	3	3	0	0	3
LAB ORIENTED THEORY COURSES								
2.	CB23731	Data Visualization Techniques	PC	4	2	0	2	3
3.	CB23732	IT Project Management	PC	4	2	0	2	3
4.		Elective III	PE	3	3	0	0	3
5.		Elective IV	PE	5	2	1	2	4
LABORATORY COURSES								
6.	CB23721	Project Evaluation I	EEC	4	0	0	4	2
TOTAL				22	13	1	8	18

SEMESTER VIII

Sl.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
LAB ORIENTED THEORY COURSES								
1.		Elective V	PE	3	3	0	0	3
2.		Elective VI	PE	4	2	0	2	3
LABORATORY COURSES								
3.	CB23821	Project Evaluation II	EEC	16	0	0	16	8
TOTAL				23	5	0	18	14

TOTAL NO. OF CREDITS: 165

PROFESSIONAL ELECTIVES

Business Analytics								
S.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	CB23A11	Fundamentals of Statistics	PE	3	3	0	0	3
2.	CB23A12	Digital Marketing & Web Analytics	PE	3	3	0	0	3
3.	CB23A13	Operation & Supply Chain Analytics	PE	3	3	0	0	3
4.	CB23A14	Enterprise Resource planning	PE	3	3	0	0	3
5.	CB23A31	Data Science for Business Analytics	PE	5	3	0	2	4
6.	CB23A32	Programming for Data Analytics	PE	5	3	0	2	4

Business Systems								
S.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
7.	BA23B11	Behavioral Economics	PE	3	3	0	0	3
8.	BA23B31	Computational Finance & Modeling	PE	4	2	0	2	3
9.	BA23B12	Industrial Psychology	PE	4	3	0	0	3
10.	BA23B13	Advance Finance	PE	4	3	0	0	3
11.	BA23B14	Essentials of Human Resources Management	PE	3	3	0	0	3
12.	BA23B15	Marketing Research & Marketing Management	PE	3	3	0	0	3
13.	BA23B32	FinTech Foundations	PE	3	2	0	2	3
14.	BA23B16	Services Science and Service Operational Management	PE	3	3	0	0	3

AI Systems								
S.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
15.	CB23C11	Cognitive Science and Analytics	PE	3	3	0	0	3
16.	CB23C31	Image Processing and Pattern Recognition	PE	4	2	0	2	3
17.	CB23C12	Generative Artificial Intelligence	PE	3	3	0	0	3
18.	CB23C32	Conversational Systems	PE	4	2	0	2	3
19.	CB23C33	Algorithmic Business Thinking	PE	5	3	0	0	3
20.	AI23632	Foundations of Natural Language Processing	PE	5	3	0	2	4

21.	IT23531	Computer Vision	PE	5	3	0	2	4
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Data Analytics								
S.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
22.	CB23D31	Data Mining and Analytics	PE	5	3	0	2	4
23.	CB23D32	Decision Support Systems	PE	3	3	0	2	4
24.	CB23D33	Advanced Social, Text and Media Analytics	PE	5	3	0	2	4
25.	CB23D34	Agile Business Intelligence	PE	4	2	0	2	3
26.	AI23531	Deep learning	PE	5	3	0	2	4
27.	AI23A36	Big Data Analytics	PE	4	2	0	2	3

Cloud, IoT and Security								
S.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
28.	CB23E31	Information Security	PC	5	3	0	2	4
29.	CB23E32	Fundamentals of IoT	PE	5	2	1	2	4
30.	CB23E33	Mobile Computing	PE	4	2	0	2	3
31.	CB23E34	Cyber security for Business	PE	4	2	0	2	3
32.	CB23E35	Enterprise Systems	PE	4	2	0	2	3
33.	CR23A34	Security and Privacy in cloud	PE	4	2	0	2	3

Programming and Testing								
S.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
34.	CB23F31	Modern Web Applications	PE	4	2	0	2	3
35.	CB23F32	Web Media Technology	PE	4	2	0	2	3
36.	CB23F33	Advanced Scripting Language	PE	4	2	0	2	3
37.	IT23B31	C# and .Net programming	PE	4	2	0	2	3
38.	IT23431	Software Testing	PE	4	2	0	2	3
39.	IT23B33	DevOps	PE	4	2	0	2	3
40.	CB23F34	IT Workshop	PE	4	2	0	2	3
41.	CB23F35	Compiler Design Techniques	PE	5	2	1	2	4

Emerging Technologies								
S.No.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
42.	CB23G11	Quantum Computation and Quantum Information	PE	3	3	0	0	3
43.	CB23G31	Robotics and Embedded Systems	PE	4	2	0	2	3
44.	CB23G32	Extended Reality Applications	PE	4	2	0	2	3
45.	CS23A32	Robotic Process Automation	PE	5	1	0	4	3
46.	CR23A33	Cryptocurrency and Blockchain Technologies	PE	4	2	0	2	3

Summary:

B.Tech Computer Science and Business Systems										
S.No.	Category	Credits per semester								Total Credits
		1	2	3	4	5	6	7	8	
1.	HS	3	3		2		2			10
2.	BS	12	8		4					24
3.	ES	3	3							6
4.	PC	4	7	22	11	8	11	3		66
5.	MS		2		2	2	4	3		13
6.	PE					4	4	7	6	21
7.	OE					3		3		6
8.	EEC				4	4	1	2	8	19
9.	Mandatory Course	0	0	0	0	0	0	0	0	0
Total		22	23	22	23	21	22	18	14	165