

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
COURSE STRUCTURE & SYLLABUS (R25 Regulations)
Applicable from AY 2025-26 Batch

B.Tech. CSBS

I Year I Semester (25 Hours)

S. No.	Course Code	Course Title	L	T	P	Credits
1	BSC	Matrices and Calculus	3	1	0	4
2	BSC	Advanced Engineering Physics	3	0	0	3
3	MEC	Engineering Graphics and Computer Aided Drafting	2	0	2	3
4		Basic Electrical Engineering	3	0	0	3
5	CSC	Programming for Problem Solving	3	0	0	3
6	BSC	Advanced Engineering Physics Lab	0	0	2	1
7	CSC	Programming for Problem Solving Lab	0	0	2	1
8		Python Programming Lab	0	0	2	1
9	HSC	Basic Electrical Engineering Lab	0	0	2	1
10		Induction Program				
		Total Credits	14	1	10	20

I Year II Semester (25 Hours)

S. No.	Course Code	Course Title	L	T	P	Credits
1	BSC	Ordinary Differential Equations and Vector Calculus	3	0	0	3
2	BSC	Engineering Chemistry	3	0	0	3
3	HSC	English for Skill Enhancement	3	0	0	3
4		Electronic Devices and Circuits	3	0	0	3
5		Data Structures	3	0	0	3
6	BSC	Engineering Chemistry Lab	0	0	2	1
7		Data Structures Lab	0	0	2	1
8	HSC	English Language and Communication Skills Lab	0	0	2	1
9	MEC	Engineering Workshop	0	0	2	1
10		IT Workshop	0	0	2	1
		Total Credits	15	0	10	20

II YEAR I SEMESTER (25 Hours)

S. No.	Course Code	Course Title	L	T	P	Credits
1	BSC	Mathematical and Statistical Foundation	3	0	0	3
2		Database Management Systems	3	0	0	3
3		Business Statistics Using R	3	0	0	3
4		Computer Organization	3	0	0	3
5		Algorithms Design and Analysis	3	0	0	3
6		Computational Mathematics Laboratory	0	0	2	1
7		Database Management Systems Laboratory	0	0	2	1
8		Business Statistics Using R Laboratory	0	0	2	1
9		Algorithms Design and Analysis Laboratory	0	0	2	1
10	SDC	Data Visualization-R Programming/Power BI/ Tableau/Google Chart	0	0	2	1

		Total Credits	15	0	10	20
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II YEAR II SEMESTER (26 Hours)

S. No.	Course Code	Course Title	L	T	P	Credits
1		Discrete Mathematics	3	0	0	3
2		Operating Systems	3	0	0	3
3		Artificial Intelligence	3	0	0	3
4		Software Engineering	3	0	0	3
5		Business Economics and Financial Analysis	3	0	0	3
6		Innovation and Entrepreneurship	2	0	0	2
7		Operating Systems Laboratory	0	0	2	1
8		Artificial Intelligence Laboratory	0	0	2	1
9		Software Engineering Laboratory	0	0	2	1
10	SDC	Node JS/React JS/Django	0	0	2	1
11	MC	Indian Knowledge System	1	0	0	1
		Total Credits	18	0	08	22

III YEAR I SEMESTER (27 Hours)

S. No.	Course Code	Course Title	L	T	P	Credits
1		Automata Theory and Compiler Design	3	0	0	3
2		Web Technologies	3	0	0	3
3		Business Analytics	3	0	0	3
4		Professional Elective-I	3	0	0	3
5		Open Elective-1	2	0	0	2
6		Compiler Design Laboratory	0	0	2	1
7		Web Technologies Laboratory	0	0	2	1
8		Business Analytics Laboratory	0	0	2	1
9		Field Based Project/ Internship	0	0	4	2
10	SDC	UI design- Flutter	0	0	2	1
11	MC*	Gender Sensitization*/ Human Values and Professional Ethics*	1	0	0	1
		Total Credits	15	0	12	21

***Note: For the courses Gender Sensitization and Human Values and Professional Ethics** - one hour of instruction will be conducted on alternate weeks. For example, if a one-hour class for Gender Sensitization is conducted this week, then a one-hour class for Human Values and Professional Ethics will be conducted in the following week

III YEAR II SEMESTER (25 Hours)

S. No	Course Code	Course Title	L	T	P	Credits
1		Machine Learning	3	0	0	3
2		Operations Research	3	0	0	3
3		Business Economics and Financial Analysis	3	0	0	3
4		Professional Elective-II	3	0	0	3
5		Open Elective-II	2	0	0	2
6		Operations Research Laboratory	0	0	2	1

7		Linux Programming Laboratory	0	0	2	1
8		Machine Learning Laboratory	0	0	2	1
9	HSC	English for Employability Skills Lab	0	0	2	1
10	SDC	Big data-Spark	0	0	2	1
11	MC	Environmental Science	1	0	0	1
		Total Credits	15	0	10	20

IV YEAR I SEMESTER (25 Hours)

S. No.	Course Code	Course Title	L	T	P	Credits
1		Deep Learning	3	0	0	3
2		Marketing Management and Research	3	0	0	3
3		Fundamentals of Management	3	0	0	3
4		Professional Elective-III	3	0	0	3
5		Professional Elective-IV	3	0	0	3
6		Open Elective – III	2	0	0	2
7		Deep Learning Laboratory	0	0	2	1
8		DevOps Laboratory	0	0	2	1
9		Industry Oriented Mini Project/ Summer Internship	0	0	4	2
		Total Credits	17	0	08	21

IV YEAR II SEMESTER (34 Hours)

S. No.	Course Code	Course Title	L	T	P	Credits
1		Professional Elective – V	3	0	0	3
2		Professional Elective – VI	3	0	0	3
3		Project Work	0	0	28	14
		Total Credits	6	0	28	20

Professional Electives

	Professional Elective - I	Professional Elective - II	Professional Elective-III	Professional Elective-IV	Professional Elective-V	Professional Elective-VI
1	Java Programming	Data Science	Image Processing	Recommender Systems	Digital Payment Systems	Robotic Process Automation
2	Behavioural Economics	Financial Modelling	Business Environment and Ethics	Enterprise Resource Planning	Supply Chain Management	Innovation IP Management and Entrepreneurship
3	Internet of Things	Digital Marketing	Social Media Analytics	Natural Language Processing	E-Commerce	IT Project Management

4	Data Warehousing and Data Mining	Business Intelligence	Mobile Application Development	Cloud Computing	Quantum Computing	Green Computing
5	Computer Networks	Cryptography and Network Security	Cyber Security	Ad Hoc and Sensor Networks	Block chain Technology	Information System Audit & Assurance

OPEN ELECTIVES**Open Elective-I:**

1	Digital Marketing
2	Mathematics for Machine Learning

Open Elective-II:

1	Business Analytics
2	Marketing Management and Research

Open Elective-III:

1	IT Project Management
2	Social Media Analytics