

JERUSALEM COLLEGE OF ENGINEERING

(An Autonomous Institution)

Approved by AICTE & Affiliated to Anna University

Accredited by NAAC with 'A' Grade

Chennai – 600 100



**DEPARTMENT OF ARTIFICIAL INTELLIGENCE &
DATA SCIENCE**

B.TECH. ARTIFICIAL INTELLIGENCE & DATA SCIENCE

CURRICULUM

**REGULATION 2023
CHOICE BASED CREDIT SYSTEM**

SEMESTER -I

S. No	COURSE CODE	COURSE TITLE	T/P/I	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	JHS2121	English for communicative Competence	I	HS	4	2	0	2	3
2.	JGE2102	Heritage of Tamils	T	HS	1	1	0	0	1
3.	JMA2121	Matrices and Calculus	I	BS	4	2	0	2	3
4.	JPH2101	Engineering Physics 1	T	BS	3	3	0	0	3
5.	JCY2101	Engineering Chemistry	T	BS	3	3	0	0	3
6.	JGE2101	Basic Engineering	T	ES	3	3	0	0	3
7.	JCS2121	Programming in C	I	ES	5	3	0	2	4
8.	JPC2111	Engineering Physics and Chemistry Laboratory	P	BS	2	0	0	2	1
9.	JGE2111	Basic Engineering Laboratory	P	ES	2	0	0	2	1
TOTAL					27	17	0	10	22

SEMESTER- II

S. No	COURSE CODE	COURSE TITLE	T/P/I	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	JHS2221	English for Science and Technology	I	HS	4	2	0	2	3
2.	JGE2202	Tamils and Technology	T	HS	1	1	0	0	1
3.	JMA2221	Statistics for Engineers	I	BS	4	2	0	2	3
4.	JPH2201	Engineering Physics 2	T	BS	3	3	0	0	3
5.	JCY2201	Environmental Science and Sustainability	T	BS	2	2	0	0	2
6.	JGE2221	Engineering Graphics	I	ES	4	2	0	2	3
7.	JAD2201	Fundamentals of Data Science	T	PC	3	3	0	0	3
8.	JPC2211	Engineering Physics and Environmental Science Laboratory	P	BS	2	0	0	2	1
9.	JAD2211	Fundamentals of Data Science Laboratory	P	PC	4	0	0	4	2
10.	JGE2241	Gaming Craft Studio	P	EEC	4	0	0	4	2
TOTAL					31	15	0	16	23

SEMESTER- III

S. No	COURSE CODE	COURSE TITLE	T/P/I	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	JMA2302	Mathematical Foundations for Computer Science	T	BS	4	2	2	0	3
2.	JAD2421	Data Analytics and Visualization	I	PC	5	3	0	2	4
3.		Data Structures and Algorithms	T	PC	3	3	0	0	3
4.		Digital Principles and Computer Organization	I	PC	5	3	0	2	4
5.		Object oriented Programming	T	PC	3	3	0	0	3
6.	JNC2361	Disaster Risk Management and Reduction	T	NCM	3	3	0	0	-
7.		Object oriented programming Laboratory	P	PC	4	0	0	4	2
8.		Data Structures and algorithms Laboratory	P	PC	4	0	0	4	2
9.	JPT2041	Soft Skills and Aptitude	P	EEC	2	0	0	2	*
TOTAL					33	17	2	14	21

SEMESTER- IV

S. No	COURSE CODE	COURSE TITLE	T/P/I	CATEGORY	CONTACT PERIODS	L	T	P	C
1	JMA2402	Applied Linear Algebra	T	BS	4	2	2	0	3
2		Artificial Intelligence	T	PC	3	3	0	0	3
3		Database Management Systems	T	PC	3	3	0	0	3
4		Operating Systems	I	PC	5	3	0	2	4
5	-	Professional Elective 1	T	PE	3	3	0	0	3
6	-	Open Elective 1	T	OE	3	3	0	0	3
7		Artificial Intelligence Laboratory			4	0	0	4	2
8		Database Management Systems Laboratory	P	PC	4	0	0	4	2
9	JPT2041	Soft Skills and Aptitude	P	EEC	2	0	0	2	1
10	JGE2442	Advanced IT Infrastructure Laboratory	P	EEC	4	0	0	4	2
TOTAL					33	17	2	14	26

***Only internal assessment**

SEMESTER- V

S. No	COURSE CODE	COURSE TITLE	T/P/I	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	JMA2501	Optimization Techniques	T	BS	4	2	2	0	3
2.	JAL2521	Machine Learning	T	PC	3	3	0	0	3
3.		Computer Networks	T	PC	3	3	0	0	3
4.		Web Applications Framework	T	PC	3	3	0	0	3
5.	-	Professional Elective 2	T	PE	3	3	0	0	3
6.	-	Open Elective 2	T	OE	3	3	0	0	3
7.		Machine Learning laboratory	P	PC	4	0	0	4	2
8.	JPT2042	Technical Skills and Aptitude	P	EEC	2	0	0	2	*
9.	JGE2542	MERN Stack Development Laboratory	P	EEC	4	0	0	4	2
TOTAL					29	17	2	10	22

SEMESTER- VI

S. No	COURSE CODE	COURSE TITLE	T/P/I	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	JAD2601	Text and Speech Analysis	T	PC	3	3	0	0	3
2.		Neural Networks and Deep Learning	I	PC	5	3	0	2	4
3.		Big Data Management	T	PC	3	3	0	0	3
4.	-	Professional Elective 3	T	PE	3	3	0	0	3
5.	-	Professional Elective 4	T	PE	3	3	0	0	3
6.	-	Open Elective 3	T	OE	3	3	0	0	3
7.	JPT2042	Technical Skills and Aptitude	P	EEC	2	0	0	2	1
8.	JHS2541	Professional Communication	P	HS	2	0	0	2	1
9.		Big Data Management Laboratory	P	PC	4	0	0	4	2
10.	JGE2642	Computational Intelligence Laboratory	P	EEC	4	0	0	4	2
TOTAL					32	18	0	14	25

SEMESTER- VII

S. No	COURSE CODE	COURSE TITLE	T/P/I	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	-	Professional Elective 5	T	PE	3	3	0	0	3
2.	-	Professional Elective 6	T	PE	3	3	0	0	3
3.	-	Open Elective 4	T	OE	3	3	0	0	3
4.	JNC2761	Non-Credit Mandatory Course 2	T	NCM	3	3	0	0	-
5.	JHS2741	Entrepreneurship for Engineers	P	HS	2	0	0	2	1
6.	JAD2741	Comprehension and Technical Seminar	P	EEC	2	0	0	2	1
7.	JAD2742	Internship	P	EEC	4	-	-	4**	2
TOTAL					20	12	0	8	13

SEMESTER- VIII

S. No	COURSE CODE	COURSE TITLE	T/P/I	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	JAD2831	Project Work	P	PC	20	0	0	20	10
TOTAL					20	0	0	20	10

B.TECH ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

CURRICULUM -2023

CHOICE BASED CREDIT SYSTEM

I - VIII SEMESTERS CURRICULUM

COURSE SUMMARY SHEET

S.No	Category	Credits as per Semester								Total Credits
		1	2	3	4	5	6	7	8	
1	HS	4	4	-	-	-	1	1	-	11
2	BS	10	9	3	3	3	-	-	-	28
3	ES	8	3	-	-	-	-	-	-	11
4	PC	-	5	18	14	11	12	-	10	71
5	PE	-	-	-	3	3	6	6	-	18
6	OE	-	-	-	3	3	3	3	-	12
7	EEC	-	2	-	3	2	3	3	-	11
Total		22	23	21	26	22	25	13	10	162
Non-Credit Mandatory				1 sub				1 sub		



