

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 COMPUTER SCIENCE AND ENGINEERING

B.E. COMPUTER SCIENCE AND ENGINEERING

CURRICULUM

REGULATION 2023
CHOICE BASED CREDIT SYSTEM

JERUSALEM COLLEGE OF ENGINEERING
 (AN AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI)
B.E. COMPUTER SCIENCE AND ENGINEERING
REGULATION 2023
CHOICE BASED CREDIT SYSTEM
I TO VIII SEMESTERS CURRICULUM AND SYLLABI
COURSE SUMMARY SHEET

S.No	Category	Credits as per Semester								Total Credits
		I	II	III	IV	V	VI	VII	VIII	
1	HS	4	4	-	-	-	1	1	-	10
2	BS	10	9	3	3	3	-	-	-	28
3	ES	8	3	-	-	-	-	-	-	11
4	PC	-	5	17	13	13	12	-	10	70
5	PE	-	-	-	3	3	6	6	-	18
6	OE	-	-	-	3	3	3	3	-	12
7	EEC	-	2		3	2	3	3	-	13
TOTAL (B.E)		22	23	20	25	24	25	13	10	162

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I TO VIII SEMESTERS CURRICULUM AND SYLLABI

SEMESTER 1

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 2

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	JCS2201	Python Programming	T	PC	3	3	0	0	3
8	JPC2211	Engineering Physics and Environmental Science Laboratory	P	BS	2	0	0	2	1
9	JCS2211	Python Programming Laboratory	P	PC	4	0	0	4	2
10	JGE2241	Gaming and Crafts studio	P	EEC	4	0	0	4	2
TOTAL					31	15	0	16	23

SEMESTER 3

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		Object Oriented Programming	T	PC	3	3	0	0	3
3		Data Structures and Algorithms	T	PC	3	3	0	0	3
4		Data Science	T	PC	3	3	0	0	3
5		Digital Principles and Computer Organization	I	PC	5	3	0	2	4
6	JNC2361	Non-Credit Mandatory Course 1	T	NCM	3	3	0	0	-
7		Data Structures and Algorithms Laboratory	P	PC	4	0	0	4	2
8		Object Oriented Programming Laboratory	P	PC	4	0	0	4	2
9	JPT2041	Soft Skills and Aptitude	P	EEC	2	0	0	2	*
TOTAL					31	17	2	12	20

*Only Internal Assessment

SEMESTER 4

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		Database Management Systems	T	PC	3	3	0	0	3
3		Operating Systems	I	PC	5	3	0	2	4
4		Design and Analysis of Algorithms	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		Database Management Systems Laboratory	P	PC	4	0	0	4	2
8	JPT2041	Soft Skills and Aptitude	P	EEC	2	0	0	2	1
9	JGE2442	Advanced IT Infrastructure Laboratory	P	EEC	4	0	0	4	2
TOTAL					33	17	2	14	25

SEMESTER 5

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		Computer networks	T	PC	3	3	0	0	3
3		Object Oriented Software Engineering	I	PC	5	3	0	2	4
4		Automata Theory and Compiler Design	I	PC	5	3	0	2	4
5	-	Professional Elective 2	T	PE	3	3	0	0	3
6	-	Open Elective 2	T	OE	3	3	0	0	3
7		Computer networks 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					33	17	2	14	24

*Only Internal Assessment

SEMESTER 6

S. No	COURSE CODE	COURSE TITLE	T/P/I	CATEGORY	CONTACT PERIODS	L	T	P	C
1		Internet and web Programming	I	PC	5	3	0	2	4
2		Cryptography and Network security	T	PC	3	3	0	0	3
3		Cloud Computing	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	JHS2541	Professional Communication	P	HS	2	0	0	2	1
8	JCS2611	Cryptography and Network security Laboratory	P	PC	4	0	0	4	2
9	JPT2042	Technical Skills and Aptitude	P	EEC	2	0	0	2	1
10	JGE2642	Computational Intelligence Laboratory	P	EEC	4	0	0	4	2
TOTAL					32	18	0	14	25

SEMESTER 7

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	JCS2741	Comprehension and Technical Seminar	P	EEC	2	0	0	2	1
7	JCS2742	Internship	P	EEC	-	-	-	4**	2
TOTAL					16	12	0	8	13

**** Internship of one month must be undertaken in industry through semester 4, 5 and 6 leading to 2 credit in semester 7**

SEMESTER 8

S. No	COURSE CODE	COURSE TITLE	T/P/I	CATEGORY	CONTACT PERIODS	L	T	P	C
1	JCS2831	Project Work	P	PC	20	0	0	20	10
TOTAL					20	0	0	20	10