

B.E. COMPUTER SCIENCE AND ENGINEERING

Regulations 2023

Semester I

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
	-	Induction Program	-	-	-	-	-	-
1	U23MA202	Calculus and Linear Algebra	BS	4	3	1	0	4
2	U23CS301	Problem Solving using C	ES	3	3	0	0	3
THEORY CUM PRACTICAL								
3	U23HS181	Technical English	HS	4	2	0	2	3
4	U23PH281	Physics for Information Sciences	BS	5	3	0	2	4
5	U23CS381	Application Design and Development	ES	4	2	0	2	3
PRACTICALS								
6	U23CS351	Problem Solving using C Laboratory	ES	4	0	0	4	2
7	U23GE351	Engineering Practices Laboratory	ES	2	0	0	2	1
PROFESSIONAL DEVELOPMENT								
8	U23EM751	Soft Skills	EM	2	0	0	2	1
MANDATORY COURSE								
9	U23MC901	□□□□□□ □□□□ / Heritage of Tamils	HSMC	1	1	0	0	1
TOTAL				29	14	1	14	22

Semester II

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	U23CS401	Data Structures	PC	3	3	0	0	3
2	U23CS402	Object Oriented Programming using C++	PC	3	3	0	0	3
	U23NCC01	NCC Credit Course Level 1 [#]	-	2	2	0	0	2
THEORY CUM PRACTICAL								
3	U23HS1XX	Business English/ Language Elective	HS	4	2	0	2	3
4	U23CS382	Python Programming	ES	5	3	0	2	4
5	U23EC381	Electronics and Microprocessors	ES	5	3	0	2	4
PRACTICALS								
6	U23CS451	Data Structures Laboratory	PC	4	0	0	4	2
7	U23CS452	Object Oriented Programming using C++ Laboratory	PC	2	0	0	2	1
PROFESSIONAL DEVELOPMENT								
8	U23EM752	Logical Thinking	EM	2	0	0	2	1
MANDATORY COURSE								
9	U23MC902	□□□□□□□□ □□□□□□□□□□□□□□□□/ Tamils and Technology	HSMC	1	1	0	0	1
TOTAL				29	15	0	14	22

#-Offered only for NCC students

Semester III

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	U23MA204	Discrete Mathematics	BS	4	3	1	0	4
2	U23CS403	Design and Analysis of Algorithms	PC	3	3	0	0	3
3	U23CS404	Database Management Systems	PC	3	3	0	0	3
4	U23CS405	Java Programming	PC	3	3	0	0	3
THEORY CUM PRACTICAL								
5	U23IT481	Software Engineering	PC	4	2	0	2	3
6	U23EC382	Digital Principles and Computer Organization	ES	5	3	0	2	4
PRACTICALS								
7	U23CS453	Design and Analysis of Algorithms Laboratory	PC	4	0	0	4	2
8	U23CS454	Database Management Systems Laboratory	PC	2	0	0	2	1
9	U23CS455	Java Programming Laboratory	PC	2	0	0	2	1
PROFESSIONAL DEVELOPMENT								
10	U23EM753	Advanced Logical Thinking	EM	2	0	0	2	1
MANDATORY COURSE								
	U23MC904	Universal Human Values*	MC	1	1	0	0	NC
TOTAL				33	18	1	14	25

Semester IV

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	U23MA209	Probability and Statistics	BS	4	3	1	0	4
2	U23CS406	Full Stack Development	PC	3	3	0	0	3
3	U23CB401	Operating Systems	PC	3	3	0	0	3
4	U23OXXXX	Open Elective I*	OE	3	3	0	0	3
	U23NCC02	NCC Credit Course Level 2#	-	3	3	0	0	3
THEORY CUM PRACTICAL								
5	U23AD481	Data Science	PC	5	3	0	2	4
6	U23EC383	Embedded Systems and IoT	ES	5	3	0	2	4
PRACTICALS								
7	U23CS456	Full Stack Development Laboratory	PC	2	0	0	2	1
8	U23CB451	Operating Systems Laboratory	PC	2	0	0	2	1
PROJECT WORK								
9	U23CS651	Project using Design Thinking (Product/Software Development Life Cycle)	PW	2	0	0	2	1
PROFESSIONAL DEVELOPMENT								
10	U23ICXXX	Industry Oriented Course I\$	EM	2	0	0	2	1

MANDATORY COURSE								
	U23MC903	Environmental Science	MC	1	1	0	0	NC
TOTAL				30	19	1	10	24

*- PE/OE – L T P C can either be 3 0 0 3 or 2 0 2 3

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Semester V

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	U23CS407	Automata Theory and Compiler Design	PC	4	3	1	0	4
2	U23IT402	Cloud Computing	PC	3	3	0	0	3
3	U23AD401	Artificial Intelligence	PC	3	3	0	0	3
4	U23CSXXX	Professional Elective I*	PE	3	3	0	0	3
5	U23CSXXX	Professional Elective II*	PE	3	3	0	0	3
THEORY CUM PRACTICAL								
6	U23EC484	Computer Networks	PC	5	3	0	2	4
PRACTICALS								
7	U23IT451	Cloud Computing Laboratory	PC	2	0	0	2	1
8	U23AD451	Artificial Intelligence Laboratory	PC	2	0	0	2	1
PROFESSIONAL DEVELOPMENT								
9	U23EM754	Summer Internship	EM	-	-	-	-	1
TOTAL				25	18	1	6	23

*- PE/OE – L T P C can either be 3 0 0 3 or 2 0 2 3

\$-IOC course not considered for the credit count

Semester VI

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	U23AM301	Machine Learning	ES	3	3	0	0	3
2	U23CS408	Cryptography and Cyber Security	PC	3	3	0	0	3
3	U23CSXXX	Professional Elective III*	PE	3	3	0	0	3
	U23NCC03	NCC Credit Course Level 3#	-	3	3	0	0	3
THEORY CUM PRACTICAL								
4	U23CS481	Software Testing	PC	5	3	0	2	4
5	U23AD381	Big Data Analytics	ES	5	3	0	2	4
PRACTICALS								
6	U23AM351	Machine Learning Laboratory	ES	2	0	0	2	1
7	U23CS457	Cyber Security Laboratory	PC	2	0	0	2	1
PROJECT WORK								
8	U23CS652	Innovative / Multi-Disciplinary Project	PW	2	0	0	2	1
TOTAL				25	15	0	10	20

*- PE/OE – L T P C can either be 3 0 0 3 or 2 0 2 3

#-Offered only for NCC students

Semester VII

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	U23CB101	Principles of Management	HS	3	3	0	0	3
2	U23CS409	Software Project Management	PC	3	3	0	0	3
3	U23CSXXX	Professional Elective IV*	PE	3	3	0	0	3
THEORY CUM PRACTICAL								
4	U23CS482	Blockchain Technologies	PC	5	3	0	2	4
PROJECT WORK								
5	U23CS653	Project Work- Phase I	PW	6	0	0	6	3
PROFESSIONAL DEVELOPMENT								
6	U23ICXXX	Industry Oriented Course II [§]	EM	2	0	0	2	1
TOTAL				20	12	0	8	16

*- PE/OE – L T P C can either be 3 0 0 3 or 2 0 2 3

§-IOC course not considered for the credit count

Semester VIII

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	U23OXXXX	Open Elective II*	OE	3	3	0	0	3
PROJECT WORK								
2	U23CS654	Project Work-Phase II	PW	16	0	0	16	8
TOTAL				19	3	0	16	11

*- PE/OE – L T P C can either be 3 0 0 3 or 2 0 2 3

Total Number of Credits:163

SUMMARY											AICTE		
Sl. No.	Course Category	Credits per Semester								Credits	Credit %	Credits	Credit %
		I	II	III	IV	V	VI	VII	VIII				
1	HS	3	3	-	-	-	-	3	-	9	5.5	16	9.8
2	BS	8	-	4	4	-	-	-	-	16	9.8	23	14.2
3	ES	9	8	4	4	-	8	-	-	33	20.3	29	17.8
4	PC	-	9	16	12	16	8	7	-	68	41.7	59	36.1
5	PE	-	-	-	-	6	3	3	-	12	7.4	12	7.4
6	OE	-	-	-	3	-	-	-	3	6	3.7	9	5.5
7	PW	-	-	-	1	-	1	3	8	13	8.0	15	9.2
8	EM	1	1	1	-	1	-	-	-	4	2.5	-	-
9	NC	-	-	✓	✓	-	-	-	-	-	-	-	-
10	MC	1	1	-	-	-	-	-	-	2	1.2	-	-
Total		22	22	25	24	23	20	16	11	163	100%	163	100%