UNIVERSITY SCHOOL
OF
INFORMATION AND COMMUNICATION TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAMME STRUCTURE

M.TECH. COMPUTER SCIENCE AND ENGINEERING

SPECILIZATION : SOFTWARE ENGINEERING

2021-2023

GAUTAM BUDDHA UNIVERSITY
GAUTAM BUDH NAGAR, GREATER NOIDA, UP, INDIA

SEMESTER I

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CS521	Advanced Data Base Management System	3	0	0	3	CC1
2	CS523	Design and Architecture for Software Systems	3	0	0	3	CC2 / FC
3	CS525	Advanced Data Structure and Algorithm	3	1	0	4	CC3
4	CS527	Research Techniques in ICT	3	0	0	3	CC4
5	CS529	Java Programming	3	0	0	3	CC5
6	ES415	Energy and Environment	3	0	0	3	OE1 /AECC
7	EN531	Language, Culture and Society	3	0	0	3	OE2 /AECC
8	CS581	Advanced Data Base Management System Lab	0	0	3	2	CC-L1
9	CS583	Java Programming Lab	0	0	3	2	CC-L2 / SEC
10	GP	General Proficiency	Non Credit				
		Total Hours and Credits	**21**	**1**	**6**	**26**	

SEMESTER II

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CS522	Python Programming	3	0	0	3	CC6
2	CS524	Advanced Software Engineering	3	0	0	3	CC7
3	CS526	Open Source Software Systems	3	0	0	3	CC8
4	CS528	Software Engineering for Data Science	3	0	0	3	CC9
5		Elective-1	3	0	0	3	E1 / DSE
6		Elective-2	3	0	0	3	E2 / DSE
7		Generic Elective	3	1	0	4	GE1
8	CS582	Python Programming Lab	0	0	3	2	CC-L3 / SEC
9	CS584	Open Source Software Systems Lab	0	0	3	2	CC-L4
10	GP	General Proficiency	Non Credit				
		Total Hours and Credits	**21**	**1**	**6**	**26**	

Summer Project in Industry will be done individually after Fourth Year of Integrated B.Tech. - M.Tech. CSE and Second Year of M.Tech. during the summer break and it will be of minimum 4 weeks. It will be evaluated as per University Examination Rules in III semester of M.Tech. and IX semester for Integrated B.Tech. - M.Tech. CSE .

SEMESTER III

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CS621	AI Enabled Software Engineering	3	0	0	3	CC10
2	CS623	Software Engineering for Cloud Computing	3	0	0	3	CC11
3		Elective-3	3	0	0	3	E3 / DSE
4		Elective-4	3	0	0	3	E4 / DSE
5	CS681	Cloud Computing Lab	0	0	3	2	CC-L5
6	CS683	Summer Project	0	0	8	4	SP / E
7	CS691	Dissertation Part - I	0	0	16	8	DP1 / E
8	GP	General Proficiency	Non Credit				
		Total Hours and Credits	12	0	27	26	

SEMESTER IV

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CS692	Dissertation Part - II	0	0	52	26	DP2 / E
2	GP	General Proficiency	Non Credit				
		Total Hours and Credits	0	0	52	26	

GRAND TOTAL OF CREDITS   =   104

Summer Project will be done individually and It will be evaluated as per University Examination Rules.

Dissertation will be done individually and It will be evaluated as per University Examination Rules.

USICT will provide a mentor/supervisor for summer project, and dissertation.

ELECTIVES FROM DCSE

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CS530	Software Relibility Engineering	3	0	0	3	E1
2	CS532	Parallel Comutation and Applications	3	0	0	3	E1
3	CS534	Web-Based Software Engineering	3	0	0	3	E1
4	CS536	Service-Oriented Computing	3	0	0	3	E1
5	CS538	Soft Computing	3	0	0	3	E2
6	CS540	Software Maintenance	3	0	0	3	E2
7	CS542	Software Measurement and Estimation	3	0	0	3	E2
8	CS544	Software Quality Assurance	3	0	0	3	E2
9	CS625	Embedded System Design	3	0	0	3	E3
10	CS627	Applied Machine Learning	3	0	0	3	E3
11	CS629	Blockchain Technology and Software Systems	3	0	0	3	E3
12	CS631	Secure Software Engineering	3	0	0	3	E3
13	CS633	AI Enabled Cyber Security	3	0	0	3	E4
14	CS635	Big Data Platforms and Analytics	3	0	0	3	E4
15	CS637	Internet of Things	3	0	0	3	E4
16	CS639	Edge Computing	3	0	0	3	E4

OPEN AND GENERIC ELECTIVES FROM OTHER SCHOOLS

S.No.	Course Code	Course Name	L	T	P	Credits	Types
17	ES415	Energy and Environment	3	0	0	3	OE1
18	EN531	Language, Culture and Society	3	0	0	3	OE2
19	MA402	Modeling and Simulation	3	1	0	4	GE1
20	MA416	Probability and Stochastic Process	3	1	0	4	GE1

CS	Computer Science for Course Code	**FC**	Foundation Course
CC	Core Course from USICT for Type of Course	**SEC**	Skill Enhancement Course
CC-L	Core Course Lab from USICT for Type of Course	**E**	Elective
GE	General Elective from related discipline of other Deptt./School	**DP1**	Dissertation Part 1
AECC	Ability Enhancement Compulsary Course	**DP2**	Dissertation Part 2
OE	Open Elective from other discipline of other Deptt./School	**SP**	Summer Project
DSE	Discipline Specific Course		