UNIVERSITY SCHOOL
OF
INFORMATION AND COMMUNICATION TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAMME STRUCTURE

M.TECH. COMPUTER SCIENCE AND ENGINEERING

TWO YEAR WEEKEND PROGRAMME

2022-2024

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

SEMESTER I

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	WCS521	Advanced Data Base Management System	3	0	0	3	CC1
2	WCS523	Advanced Operating System	3	0	0	3	CC2
3	WCS525	Advanced Data Structure and Algorithm	3	1	0	4	CC3
4	WCS527	Research Techniques in ICT	3	0	0	3	CC4
5	WCS529	Java Programming	3	0	0	3	CC5
6	WCS531	Graph Theory	3	0	0	3	CC6
7	ES415	Energy and Environment	3	0	0	3	OE1 /AECC
8	WCS581	Advanced Data Base Management System Lab	0	0	3	2	CC-L1
9	WCS583	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	WCS522	Python Programming	3	0	0	3	CC7
2	WCS524	Advanced Software Engineering	3	0	0	3	CC8
3	WCS526	Advanced Computer Architecture	3	0	0	3	CC9
4	WCS528	Problem Solving Using Artificial Intelligence	3	0	0	3	CC10
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	WCS582	Python Programming Lab	0	0	3	2	CC-L3 / SEC
9	WCS584	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	WCS621	Computer Network	3	0	0	3	CC11
2	WCS623	Data Analytics	3	0	0	3	CC12
3		Elective-3	3	0	0	3	E3 / DSE
4		Elective-4	3	0	0	3	E4 / DSE
5	WCS681	Computer Network Lab	0	0	3	2	CC-L5
6	WCS683	Summer Project	0	0	8	4	SP / E
7	WCS691	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	WCS692	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 may be offered from SWYAM/NPTEL

ELECTIVES FROM DCSE

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	WCS530	Natural Language Processing	3	0	0	3	E1
2	WCS532	Parallel Comutation and Applications	3	0	0	3	E1
3	WCS534	Computer Vision	3	0	0	3	E1
4	WCS536	Expert Systems	3	0	0	3	E1
5	WCS538	Soft Computing Techniques	3	0	0	3	E2
6	WCS540	Data Science	3	0	0	3	E2
7	WCS542	Blockchain Technology	3	0	0	3	E2
8	WCS544	Software Quality Assurance	3	0	0	3	E2
9	WCS625	Embedded System Design	3	0	0	3	E3
10	WCS627	Applied Machine Learning	3	0	0	3	E3
11	WCS629	Blockchain Technology and Software Systems	3	0	0	3	E3
12	WCS631	Data Science	3	0	0	3	E3
13	WCS633	AI Enabled Cyber Security	3	0	0	3	E4
14	WCS635	Big Data Platforms and Analytics	3	0	0	3	E4
15	WCS637	Internet of Things	3	0	0	3	E4
16	WCS639	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

WCS Weekend Computer Science for Course Code

CC Core Course from USICT for Type of Course

CC-L Core Course Lab from USICT for Type of Course

GE General Elective from related discipline of other Deptt./School

AECC Ability Enhancement Compulsary Course

OE Open Elective from other discipline of other Deptt./School

DSE Discipline Specific Course

FC Foundation Course

SEC Skill Enhancement Course

E Elective

DP1 Dissertation Part 1

DP2 Dissertation Part 2

SP Summer Project