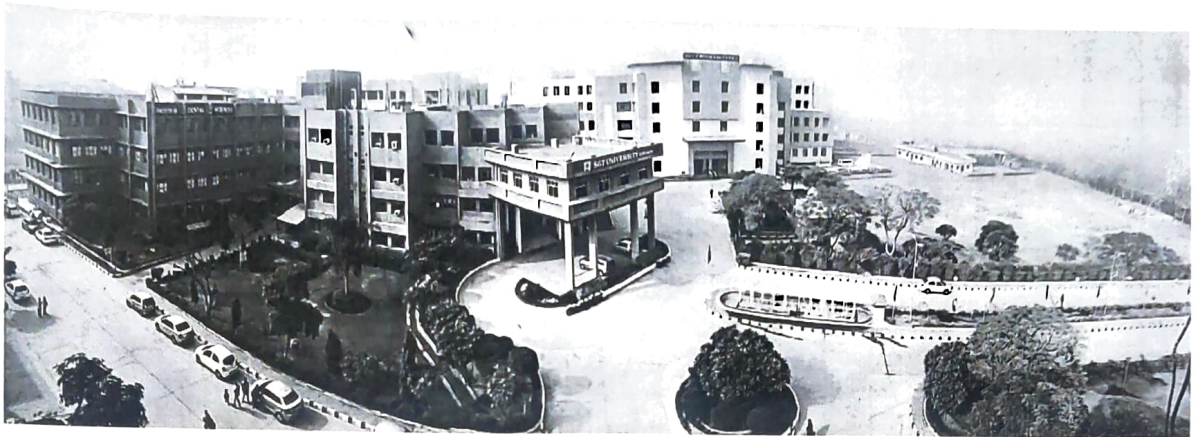


SGT University, Chandu-Budhera, Gurugram
Faculty of Engineering & Technology
Department of Computer Science & Engineering



M. Tech. Computer Science & Engineering
Scheme & Syllabus (2021-22 Onwards)

Vision of SGT University

**“Driven by Research & Innovation, we aspire to be
amongst the top ten Universities in the Country by 2022”**


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SGT University
Budhera, Gurugram

M.Tech (Computer science & Engineering)

S. No.	Subject Code	Subject Name	Semester	L	T	P	C	Category A (Core/ ID/ VAC	Category B (Compulsory/ DE/ BSC/ EAS/ OE/ MC/ II/ MOOC)	Internal	External	Theory/Practical
1.		Data Science with Python	1st	3	0	0	3	Core	Compulsory	40	60	Theory
2.		Medical image processing	1st	3	0	0	3	ID	EAS	40	60	Theory
3.		Advanced DBMS	1st	3	0	0	3	Core	Compulsory	40	60	Theory
4.		Department Electives-XVI	1st	3	0	0	3	Core	DE	40	60	Theory
5.		Data Science with Python Lab	1st	0	0	2	1	Core	Compulsory	60	40	Practical
6.		Advanced DBMS Lab	1st	0	0	2	1	Core	Compulsory	60	40	Practical
7.		Medical image processing Lab	1st	0	0	2	1	ID	EAS	60	40	Theory
8.		Department Electives-XVI Lab	1st	0	0	2	1	Core	DE	60	40	Theory
9.		Value Added Courses-I	1st	2	0	0	2	VAC	VAC	40	60	Theory
		Total		14	0	8	18					
1.		Advance Software Engineering & Testing	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
2.		Software Project Management	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
3.		Data Mining	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
4.		Department Electives-XVII	2nd	3	0	0	3	Core	DE	40	60	Theory
5.		Advance Software Engineering & Testing Lab	2nd	0	0	4	2	Core	Compulsory	60	40	Practical
6.		Data Mining Lab	2nd	0	0	2	1	Core	Compulsory	60	40	Practical
7.		Department Electives- XVII Lab	2nd	0	0	2	1	Core	DE	60	40	Practical
		Total		12	0	8	16					
1.		Distributed Computing	3rd	3	0	0	3	Core	Compulsory	40	60	Theory
2.		AI & Soft Computing	3rd	3	0	0	3	Core	Compulsory	40	60	Theory
3.		Department Electives-XIII	3rd	3	0	0	3	Core	DE	40	60	Theory
4.		Department Electives-XIV	3rd	3	0	0	3	Core	DE	40	60	Theory
5.		Department Electives-XV	3rd	3	0	0	3	Core	DE	40	60	Theory
6.		AI & Soft Computing Lab	3rd	0	0	4	2	Core	Compulsory	60	40	Practical
7.		Department Electives Lab-XIII	3rd	0	0	2	1	Core	DE	60	40	Practical
8.		Department Electives Lab-XV	3rd	0	0	2	1	Core	DE	60	40	Practical
9.		Distributed Computing Lab	3rd	0	0	2	1	Core	Compulsory	60	40	Practical
10.		Value Added Courses-V	3rd	2	0	0	2	VAC	VAC	60	40	Theory
		Total		17	0	10	22					
1.		Dissertation	4th	-	-	20 W	20	Core	Research Track		100	Practical
							76					
Overall Total Credits = I to IV = 76												

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1. Mooc Course: Student will be offered various available SWAYAM MOOC Courses in lieu of various regular core (Compulsary and Department Electives)
2. Student can opt for Honours degree by earning 18 - 20 additional credits through SWAYAM MOOC courses but with prior permission of the department
3. A student can have Honours degree WITH SPECIALIZATION in the particular of his/her branch by earning 18-20 additional credits in particular

Abbreviation Used:

ID	Interdisciplinary
VAC	Value Addition Course
DE	Department Electives
BSC	Basic Science Courses
EAS	Engineering Applied Science
II	Industrial Internship
MC	Mandatory Courses (Non- Credit

Credit Distribution	
Core	63
Other (ID +VAC)	13
Total	76

Core Credits	
Compulsory	24
Department Electives	19
Research Track	20
Total	63

Other Credits	
Interdisciplinary (EAS)	9
VAC	4
Total	13

Registrar
 Satnam University
 Bhiwani, Gurugram

M.Tech Bigdata Analytics(Computer science & Engineering)

S. No.	Subject Code	Subject Name	Semester	L	T	P	C	Category A (Core/ ID/ VAC)	Category B (Compulsory/ DE/ BSC/ EAS/ OE/ MC/ II/ MOOC)	Internal	External	Theory/Prac tical
1.		Data Science with Python	1st	3	0	0	3					
2.		Medical image processing	1st	3	0	0	3	Core	Compulsory	40	60	Theory
3.		Advanced DBMS	1st	3	0	0	3	ID	EAS	40	60	Theory
4.		Department Electives-XVI	1st	3	0	0	3	Core	Compulsory	40	60	Theory
5.		Machine learning	1st	3	0	0	3	Core	DE	40	60	Theory
6.		Machine Learning lab	1st	0	0	2	1	Core	SE	40	60	Theory
7.		Data Science with Python Lab	1st	0	0	2	1	Core	SE	60	40	Practical
8.		Advanced DBMS Lab	1st	0	0	2	1	Core	Compulsory	60	40	Practical
9.		Medical image processing Lab	1st	0	0	2	1	Core	Compulsory	60	40	Practical
10.		Department Electives-XVI Lab	1st	0	0	2	1	ID	EAS	60	40	Theory
11.		Value Added Courses-I	1st	2	0	0	2	Core	DE	60	40	Theory
		Total		17	0	10	22	VAC	VAC	40	60	Theory
1.		Advance Software Engineering & Testing	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
2.		Software Project Management	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
3.		Data Mining	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
4.		Department Electives-XVII	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
5.		Streaming Data Analytics	2nd	3	0	0	3	Core	DE	40	60	Theory
6.		Streaming Data Analytics lab	2nd	0	0	2	1	Core	SE	40	60	Theory
7.		Advance Software Engineering & Testing Lab	2nd	0	0	4	2	Core	SE	60	40	Practical
8.		Data Mining Lab	2nd	0	0	2	1	Core	Compulsory	60	40	Practical
9.		Department Electives- XVII Lab	2nd	0	0	2	1	Core	Compulsory	60	40	Practical
		Total		15	0	10	20	Core	DE	60	40	Practical
1.		Distributed Computing	3rd	3	0	0	3	Core	Compulsory	40	60	Theory
2.		AI & Soft Computing	3rd	3	0	0	3	Core	Compulsory	40	60	Theory
3.		Domain Specific Predictive Analytics	3rd	3	0	0	3	Core	SE	40	60	Theory
4.		Department Electives-XIII	3rd	3	0	0	3	Core	DE	40	60	Theory
5.		Department Electives-XIV	3rd	3	0	0	3	Core	DE	40	60	Theory
6.		Department Electives-XV	3rd	3	0	0	3	Core	DE	40	60	Theory
7.		AI & Soft Computing Lab	3rd	0	0	4	2	Core	Compulsory	60	40	Practical
8.		Department Electives Lab-XIII	3rd	0	0	2	1	Core	DE	60	40	Practical
9.		Department Electives Lab-XV	3rd	0	0	2	1	Core	DE	60	40	Practical
10.		Distributed Computing Lab	3rd	0	0	2	1	Core	Compulsory	60	40	Practical
11.		Value Added Courses-V	3rd	2	0	0	2	VAC	VAC	60	40	Theory
		Total		20	0	10	25					
1.		Dissertation	4th	-	-	20 W	20	Core	Research Track		100	Practical
		Total					87					
Overall Total Credits = I to IV = 87												

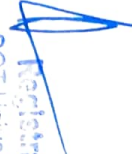
1. Mooc Course: Student will be offered various available SWAYAM MOOC Courses in lieu of various regular core (Compulsory and Department Electives)
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3. A student can have Honours degree WITH SPECIALIZATION in the particular of his/her branch by earning 18-20 additional credits in particular

Abbreviation Used:	
ID	Interdisciplinary
VAC	Value Addition Course
DE	Department Electives
BSC	Basic Science Courses
EAS	Engineering Applied Science
II	Industrial Internship
MC	Mandatory Courses (Non- Credit
SE	Specialization Elective

Credit Distribution	
Core	63
Other (ID +VAC)	24
Total	87

Core Credits	
Compulsory	24
Department Electives	19
Research Track	20
Total	63

Other Credits	
Interdisciplinary (EAS)	9
VAC	4
SE	11
Total	24


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 Pithara, Gurugram

M.Tech (Computer science & Engineering)

Semester 1st

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1.		Data Science with Python	3	0	0	3	40	60	100
2.		Medical image processing	3	0	0	3	40	60	100
3.		Advanced DBMS	3	0	0	3	40	60	100
4.		Department Electives-XVI	3	0	0	3	40	60	100
5.		Data Science with Python Lab	0	0	2	1	60	40	100
6.		Advanced DBMS Lab	0	0	2	1	60	40	100
7.		Medical image processing Lab	0	0	2	1	60	40	100
8.		Department Electives-XVI Lab	0	0	2	1	60	40	100
9.		Value Added Courses-I	2	0	0	2	40	60	100
		Total	14	0	8	18	440	460	900

M.Tech (Computer science & Engineering)**Semester 2nd**

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1.		Advance Software Engineering & Testing	3	0	0	3	40	60	100
2.		Software Project Management	3	0	0	3	40	60	100
3.		Data Mining	3	0	0	3	40	60	100
4.		Department Electives-XVII	3	0	0	3	40	60	100
5.		Advance Software Engineering & Testing Lab	0	0	4	2	60	40	100
6.		Data Mining Lab	0	0	2	1	60	40	100
7.		Department Electives- XVII Lab	0	0	2	1	60	40	100
		Total	12	0	8	16	340	360	700

M.Tech (Computer science & Engineering)

Semester 3rd

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1.		Distributed Computing	3	0	0	3	40	60	100
2.		AI & Soft Computing	3	0	0	3	40	60	100
3.		Department Electives-XIII	3	0	0	3	40	60	100
4.		Department Electives-XIV	3	0	0	3	40	60	100
5.		Department Electives-XV	3	0	0	3	40	60	100
6.		AI & Soft Computing Lab	0	0	4	2	60	40	100
7.		Department Electives Lab-XIII	0	0	2	1	60	40	100
8.		Department Electives Lab-XV	0	0	2	1	60	40	100
9.		Distributed Computing Lab	0	0	2	1	60	40	100
10.		Value Added Courses-V	2	0	0	2	60	40	100
		Total	17	0	10	22	500	500	1000

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 SGT University
 Budhera, Gurugram

M.Tech (Computer science & Engineering)

Semester 4th

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1.		Dissertation	-	-	20 W	20		100	100
		Total				20		100	100


Rajendra
SGT University
Budhera, Gurugram

M.Tech Bigdata Analytics(Computer science & Engineering)

Semester 1st

S. No.	Subject	Subject Name	L	T	P	C	Internal	External	Total
1.		Data Science with Python	3	0	0	3	40	60	100
2.		Medical image processing	3	0	0	3	40	60	100
3.		Advanced DBMS	3	0	0	3	40	60	100
4.		Department Electives-XVI	3	0	0	3	40	60	100
5.		Machine learning	3	0	0	3	40	60	100
6.		Machine Learning lab	0	0	2	1	60	40	100
7.		Data Science with Python Lab	0	0	2	1	60	40	100
8.		Advanced DBMS Lab	0	0	2	1	60	40	100
9.		Medical image processing Lab	0	0	2	1	60	40	100
10.		Department Electives-XVI Lab	0	0	2	1	60	40	100
11.		Value Added Courses-I	2	0	0	2	40	60	100
		Total	17	0	10	22	540	560	1100

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Budhara, Gurugram

M.Tech Bigdata Analytics(Computer science & Engineering)

Semester 2nd

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1.		Advance Software Engineering & Testing	3	0	0	3	40	60	100
2.		Software Project Management	3	0	0	3	40	60	100
3.		Data Mining	3	0	0	3	40	60	100
4.		Department Electives-XVII	3	0	0	3	40	60	100
5.		Streaming Data Analytics	3	0	0	3	40	60	100
6.		Streaming Data Analytics lab	0	0	2	1	60	40	100
7.		Advance Software Engineering & Testing Lab	0	0	4	2	60	40	100
8.		Data Mining Lab	0	0	2	1	60	40	100
9.		Department Electives- XVII Lab	0	0	2	1	60	40	100
Total			15	0	10	20	440	460	900


 Professor
 SGT University
 Budhera, Gurugram

M.Tech Bigdata Analytics(Computer science & Engineering)

Semester 3rd

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1.		Distributed Computing	3	0	0	3	40	60	100
2.		AI & Soft Computing	3	0	0	3	40	60	100
3.		Domain Specific Predictive Analytics	3	0	0	3	40	60	100
4.		Department Electives-XIII	3	0	0	3	40	60	100
5.		Department Electives-XIV	3	0	0	3	40	60	100
6.		Department Electives-XV	3	0	0	3	40	60	100
7.		AI & Soft Computing Lab	0	0	4	2	60	40	100
8.		Department Electives Lab-XIII	0	0	2	1	60	40	100
9.		Department Electives Lab-XV	0	0	2	1	60	40	100
10.		Distributed Computing Lab	0	0	2	1	60	40	100
11.		Value Added Courses-V	2	0	0	2	60	40	100
Total			20	0	10	25	540	560	1100

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Bathinda, Gurgaon

M.Tech Bigdata Analytics(Computer science & Engineering)**Semester 4th**

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1.		Dissertation	-	-	20 W	20		100	100


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Budhora, Gurugram

UNIVERSITY UMBRELLA VALUE ADDED SKILL ENHANCEMENT COURSES																									
BATCH: 2021-22																									
Sr. No.	Faculty	Semester	Subject Code	Nomenclature	Theory/ Practical	Credits	THEORY (Internal)										PRACTICAL (Internal)					Scheme of Examination (Theory+Internal+Practical) (Theory+Internal+Practical)			
							Assess	Mid	End	Practical	Project	Assignment	Work	Attendance	Mid	End	Practical	Project	Assignment	Work	Attendance		Mid	End	Practical
ASSIGNED MARKS																									
1	Behavioral	Odd	VASE01001	Managing Business Mental Health	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
2	Behavioral	Odd	VASE01002	Psychology of Love and Relationship	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
3	Behavioral	Odd	VASE01003	Peace Education	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
4	Behavioral	Odd	VASE01004	Psycho-Social Issues of Special Children	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
5	Behavioral	Odd	VASE01005	Educational Audiology	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
6	Behavioral	Odd	VASE01006	Psychology of Speech	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
7	Education	Odd	VASE01007	Digital Tools in Education	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
8	Education	Odd	VASE01008	Education in the Era of Pandemic	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
9	Fashion	Odd	VASE01009	Basics of Dressing	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
10	Engineering	Odd	VASE01010	Introduction to MATLAB	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
11	Engineering	Odd	VASE01011	Solid Waste Management	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
12	Engineering	Odd	VASE01012	Computer Network	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
13	Science	Odd	VASE01013	Cyber Security	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
14	Science	Odd	VASE01014	Occupational Health and Safety	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
15	Science	Odd	VASE01015	Scientific Writing using LaTeX	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
16	Nursing	Odd	VASE01016	Adolescent Health and Counselling	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
17	Nursing	Odd	VASE01017	Compassionate, Respectful and Caring	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
18	Nursing	Odd	VASE01018	Good Parenting	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
19	Nursing	Odd	VASE01019	Child Abuse	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
20	Nursing	Odd	VASE01020	Fundamentals of Patient Safety	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
21	Hotel Management	Odd	VASE01021	Event Management	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
22	Management	Odd	VASE01022	Digital and Social Media Marketing	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
23	Management	Odd	VASE01023	Finance for Non-Finance Professionals	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
24	Management	Odd	VASE01024	Hospital Infection Control	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
25	Agricultural	Odd	VASE01025	Agricultural Heritage	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
26	Agricultural	Odd	VASE01026	Mushroom Production	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
27	Agricultural	Odd	VASE01027	Organic Vegetable Production Technology	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
28	Agricultural	Odd	VASE01028	Intellectual Property Rights	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
29	Law	Odd	VASE01029	Competition Law and Policy	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
30	Law	Odd	VASE01030	Real Estate Law	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
31	Mass Communication	Odd	VASE01031	Public Speaking	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
32	Mass Communication	Odd	VASE01032	Verbal Ability & Critical Reasoning	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
33	Mass Communication	Odd	VASE01033	Literature and Life	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
34	Pharmacy	Odd	VASE01034	Antimicrobial Resistance	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
35	Pharmacy	Odd	VASE01035	Professional Code of Ethics in Pharmacy	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
36	Naturopathy	Odd	VASE01036	Yoga for Health and Wellness	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
37	Physiotherapy	Odd	VASE01037	Women Health	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
38	Physiotherapy	Odd	VASE01038	Exercise for Health Living	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
39	Ayurveda	Odd	VASE01039	Basics of Sanskrit Language	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
40	Allied	Odd	VASE01040	Basic Course in Biomedical Waste Management	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
41	Allied	Odd	VASE01041	Computer Application in Biology	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
42	Allied	Odd	VASE01042	Food Preservation Techniques	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
43	Allied	Odd	VASE01043	Hospital Patient Handling, Legal and Medical Issues	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal
44	Allied	Odd	VASE01044	Introduction to Web Development	Theory	2	0	0	2	30	12	10	5	5	20	8									Theory + Internal

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