



School of Engineering & Technology
Department of Computer Application

M.Sc. – Computer Science

With Specialization in Data Science

Semester I, II, III & IV

AY 2023-2025

Semester I

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit	Mark	
					L	T	P		C	CA
T	1.	DSCC		Computational Techniques using Python	3	0	0	3	40	60
T	2.	DSCC		Advanced Data Structures & Algorithms	3	0	0	3	40	60
T	3.	OEC		Introduction to Data Science	3	1	0	4	40	60
T	4.	DSCC		Mathematical and Statistical Foundations	3	0	0	3	40	60
T	5.	AEC		Personality and Soft Skill development	3	0	0	3	40	60
P	6.	DSCC		Advanced Data Structures & Algorithms LAB	0	0	4	2	50	50
P	7	DSCC		Web Technology Lab	0	0	4	2	50	50
Total					15	1	8	20	300	400

Semester II

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit	Mark	
					L	T	P		C	CA
T	1.	DSCC		Computer Organization and architecture	3	0	0	3	40	60
P	2.	DSCC		Advanced Database management system	3	0	0	3	40	60
T	3.	DSCC		Software Engineering	3	0	0	3	40	60
T	4.	OEC		Data warehousing and Data mining	3	1	0	4	40	60
T	5.	DSCC		Machine Learning	3	0	0	3	40	60
P	6.	DSCC		Machine Learning Lab	0	0	4	2	50	50
T/P	7.	DSCC		Advanced DBMS Lab (SQL/ NoSQL)	0	0	4	2	50	50
Total					15	1	8	20	300	400



Semester III

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit	Mark	
					L	T	P		C	CA
T	1.	DSCC		Deep Learning	3	0	0	3	40	60
P	2.	DSCC		Operating Systems	3	0	0	3	40	60
T	3.	DSCC		Big Data Analytics / Social Network Analytics	3	1	0	4	40	60
T	4.	OEC		Advanced Web Technology	3	0	0	3	40	60
T	5.	DSCC		Deep learning Lab	0	0	4	2	50	50
P	6.	DSCC		Minor Project	0	0	8	4	50	50
T/P	7.	DSCC		Seminar paper	0	0	2	1	00	100
Total					12	1	14	20	260	440

Semester IV

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit	Mark	
					L	T	P		C	CA
T	1.	VAC		Universal Human Values	2	1	0	3	00	100
P	2.	IC		Elective-I (As per Table)(As per SWAYAM)	3	0	0	3	00	100
T	3.	DSCC		Elective-II(As per Table)(As per SWAYAM)	3	0	0	3	00	100
T	4.	AEC=7 SEC =7		System Development Project	-	-	22	11	200	200
Total					8	1	22	20	200	500

OPEN ELECTIVE COURSES (SPECIALIZATION)

(MOOCS: SWAYAM COURSES)

CODE	Elective-I	CODE	Elective-II
	Quantum Computing		Internet of Things
	Molecular Computing		Computer network and Internet security
	Nano Technology		Wireless Networks
	Robotics		Android Mobile Application Dev



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	Remote Sensing & GIS		Database and content organization
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(or any other Course added time to time)

Abbreviations Used:

- DSCC : Discipline Specific Core Courses
- AEC : Ability Enhancement Compulsory Course
- VAC : Value Addition Courses
- OEC : Open Elective Courses
- SEC : Skill Enhancement Courses
- CE : Continuous Evaluation
- ESE : End Semester Examination
- L/T/P: Lecture / Tutorial / Practical