



**School of Science and Computer Studies**  
**MASTER OF SCIENCE IT in Data Science**  
**(MSc IT in DS)**

**Scheme of Teaching and Evaluation (STE)**  
**Batch [2025-27]**

**I Semester**

Sl. No.	Course Code	Course	CMRU Category	CMRU Sub category	UGC category	School	Contact Hours/ Week	Credit Distribution L-T-P-C
1	8CSGC6701	Advanced Database Management Systems and Lab	Foundation	FC	CC	SSCS	7	3-0-2-5
2	8CSPL5461	Python and R Programming and Lab	Foundation	IC	CC	SSCS	7	3-0-2-5
3	8RESE6031	Introduction to Research Methods and Techniques	Multidisciplinary	MDC	MDC	SSCS	2	2-0-0-2
4	8STAT5041	Probability and Statistics	Foundation	IC	CC	SSCS	3	3-0-0-3
5	8CSGC6741 / 8CSGC5751	<b>Elective 1 :</b> Computer Networks and Security/ Distributed Computing	Discipline Specific Elective	IC	DSE	SSCS	3	3-0-0-3
6	8CSGC5281 / 8CSGC5231	<b>Elective 2:</b> Advanced Algorithms/ Object-Oriented Modeling and Design	Discipline Specific Elective	AC	DSE	SSCS	3	3-0-0-3
	GCSCD1011	Community Service Programme - I (COS-I)*	CS	-	-	DCCC	(15)	0-0-1-1*
	<b>Total</b>							<b>21+1*</b>
<b>Common Core (Non Credit) - Graduate Requirement:</b>								-
7	GPSBD1111	Communicative Skills in Digital Era						

			PS	GR	AECC	DCCC	2	
8	GPSBD1172	Career Readiness Program - I	PS	GR	AECC	DCCC	1 2	

**II Semester**

Sl. No.	Course Code	Course	CMRU Category	CMRU Sub category	UGC category	School	Contact Hours/ Week	Credit Distribution L-T-P-C
1	8CSAI6131	Artificial Intelligence and Lab	Foundation	IC	CC	SSCS	7	3-0-2-5
2	8CSAI6141	Internet of Things and Lab	Foundation	AC	CC	SSCS	7	3-0-2-5
3	8CSDS5222	Introduction to Data Science	Foundation	IC	CC	SSCS	3	3-0-0-3
4	8CSGC6241	Software Project Management	Foundation	AC	CC	SSCS	3	3-0-0-3
5	8CSGC6432 / 8CSDS6291	<b>Elective 3:</b> Advanced Optimization Techniques/ Multivariate Data Analysis	Discipline Specific Elective	DSE	Elective	SSCS	3	3-0-0-3
6	8CSAI6171 / 8CSGC6771	<b>Elective 4:</b> Introduction to Augmented Reality and Virtual Reality / Data Mining	Discipline Specific Elective	DSE	Elective	SSCS	3	3-0-0-3
7		<b>IDE1</b>					3	3-0-0-3
	GCSCD1021	Community Service Programme - II (COS-II)*	CS	-	-		(15)	0-0-1-1*
	<b>Total</b>							<b>25 +1*</b>
<b>Common Core (Non Credit) - Graduate Requirement:</b>								-

8	GPSBT1041	Design Thinking	PS	GR	AECC	DCCC	(30)	
9	GPSLA1061	Career Readiness Program - II	PS	GR	AECC	DCCC	2	

***Internship- I (SIP) of 4 credits to be carried out between II and III Semester break. The corresponding 4 credits will be reflected in the IV Semester.***

***\*The Community Service Programme-II (COS-II) of 30 hours has to be carried out in the II Semester. The corresponding 1 credit and the CIE will be reflected in the IV Semester.***

**III Semester**

Sl. No.	Course Code	Course	CMRU Category	CMRU Sub category	UGC Category	School	Contact Hours/ Week	Credit Distribution L-T-P-C
1	8CSDS6201	Machine Learning using Python and Lab	Foundation	AC	CC	SSCS	7	3-0-2-5
2	8CSDS6261	Data Visualization using PowerBI and Tableau and Lab	Foundation	AC	CC	SSCS	7	3-0-2-5
3	8CSCC6141	Advanced Cloud Computing	Foundation (INDUSTRY EXPERT/POP)	AC	CC	SSCS	3	3-0-0-3
4	8CSAI6181	Soft Computing Techniques	Foundation	AC	CC	SSCS	3	3-0-0-3
5	8CSAI6161 / 8CSGC6781 / 8CSDS6271	<b>Elective 5:</b> Natural Language Processing Techniques /Digital Marketing and Web Analytics/ Predictive Analytics	Discipline Specific Elective	DSE	Elective	SSCS	3	3-0-0-3
6	8CSGC6311 / 8CSGC6791	Elective 6: Blockchain Technology / Digital Forensics	Discipline Specific Elective	DSE	Elective	SSCS	3	3-0-0-3
7		<b>IDE2</b>					3	3-0-0-3

8	8MOOC1X X1	MOOC	Foundation			-		4-0-0-4
	8INTS7010	Internship I†† (SIP)	Foundation	Internshi p	CC	SSCS		
								29
	<b>Common Core (Non Credit) - Graduate Requirement:</b>							
9	GPSDL1051	Strategies for Self-management	CC	GR	AECC	DCCC	1	-

† Internship I - Summer Internship Program (SIP) credits are reflected in the IV Semester

**IV Semester**

Sl. No.	Course Code	Course	CMRU Category	CMRU Sub Category	UGC Category	school	Contact Hours/ Week	Credit Distribution L-T-P-C
1	8CSDS5231	Big Data Analytics using Hadoop	Foundation (INDUSTRY EXPERT/POP)	AC	CC	SSCS	3	3-0-0-3
2	8CSDS5251/8CS GC6331	<b>Elective 7:</b> Deep Learning /Digital Image Processing/	Discipline Specific Elective (INDUSTRY FACING MODULE)	DSE	CC	SSCS	3	3-0-0-3
3	/8CSCC6131/ 8CSGC6361	<b>Elective 8:</b> Cloud Security/Wireless Sensor Networks	Discipline Specific Elective	DSE	CC	SSCS	3	3-0-0-3
4	8INTS7010	Internship-2 (SIP)	Foundation	Internship	CC		2 months	0-0-4-4
5	6CAPS7010	Capstone Project +Research Publication	Foundation	capstones	DSE	SSCS		6
6	GCSCD1011	Community Service Programme - I (COS- I)*	CS	-	-	DCCC	(30)	0-0-1-1
7	GCSCD1021	Community Service Programme- II(COS- II)*	CS	-	-	DCCC	(30)	0-0-1-1
	<b>Total</b>							<b>21</b>

Paper Publication Scopus Indexed/Web of Science or equivalent esteemed journals.

†† The credits of Internship I - - Summer Internship Program (SIP) taken up after the II Semester is reflected in the IV Semester