

Program Name: Bachelor of Science in Data Science

Abbreviation Name: B.Sc. DS

Semester: I

Program Code: ET111

With effect from: 2024-25

Course Code	Course Name	Type of Course	Credit	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	University Assessment		Continuous Assessment		University Assessment		Continuous Assessment		
								Min.	Max	Min	Max	Min.	Max	Min	Max	
11-ITM201-1C	Computer and Information Technology	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
11-ITM202-1C	Programming in C	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
11-ITE201-1C	Human Computer Interaction	MN	4	3	0	2	5	18	50	09	25	-	-	09	25	100
11-MDC201-1C	Basic Mathematics- I	MDC	4	3	1	0	4	18	50	18	50	-	-	-	-	100
11-AEC202-1C	Business Communication	AEC	2	1	1	0	2	09	25	09	25	-	-	-	-	50
11-SEC206-1C	IT Workshop	SEC	2	0	0	4	4	-	-	-	-	09	25	09	25	50
11-IKS201-1C	Indian Constitution	IKS	2	1	1	0	2	09	25	09	25	-	-	-	-	50
Total			22	14	3	10	27	-	250	-	175	-	25	-	100	550

Program Name: Bachelor of Science in Data Science

Abbreviation Name: B.Sc. DS

Semester: II

Program Code: ET111

With effect from: 2024-25

Course Code	Course Name	Type of Course	Credit	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	University Assessment		Continuous Assessment		University Assessment		Continuous Assessment		
								Min.	Max	Min.	Max	Min.	Max	Min	Max.	
12-ITM203-1C	Data Structures Using C	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
12-ITM204-1C	Operating System Concepts	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
12-ITE202-1C	Software Engineering and Modeling	MN	4	3	0	2	5	18	50	09	25	-	-	09	25	100
12-MDC202-1C	Introduction to Digital Electronics	MDC	4	3	0	2	5	18	50	09	25	-	-	09	25	100
12-AEC201-1C	Personality Development	AEC	2	1	1	0	2	09	25	09	25	-	-	-	-	50
12-SEC202-1C	Digital Marketing	SEC	2	0	0	4	4	-	-	-	-	09	25	09	25	50
12-VAC201-1C	Yoga and Wellness	VAC	2	0	0	4	4	-	-	-	-	09	25	09	25	50
Total			22	13	1	16	30	-	225	-	125	-	50	-	150	550

Program Name: Bachelor of Science in Data Science

Abbreviation Name: B.Sc. DS

Semester: III

Program Code: ET111

With effect from: 2024-25

Course Code	Course Name	Type of Course	Credit	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	University Assessment		Continuous Assessment		University Assessment		Continuous Assessment		
								Min.	Max	Min.	Max	Min.	Max	Min	Max.	
13-ITM205-2C	Database Management Systems	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
13-ITM206-2C	Object Oriented Programming Using Java	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
13-DSM201-2C	Foundation of Data Science	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
13-MDC204-2C	Mathematics for Data Science	MDC	4	3	1	0	4	18	50	18	50	-	-	-	-	100
13-AEC221-2C	Functional Grammar and Composition	AEC	2	1	1	0	2	09	25	09	25	-	-	-	-	50
13-IKS202-2C	Vedic Mathematics	IKS	2	1	1	0	2	09	25	09	25	-	-	-	-	50
13-SEC203-2C	Web Programming	SEC	2	0	0	4	4	-	-	-	-	09	25	09	25	50
Total			22	14	3	10	27	-	250	-	175	-	25	-	100	550

Program Name: Bachelor of Science in Data Science

Abbreviation Name: B.Sc. DS

Semester: IV

Program Code: ET111

With effect from: 2024-25

Course Code	Course Name	Type of Course	Credit	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	University Assessment		Continuous Assessment		University Assessment		Continuous Assessment		
								Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
14-ITM208-2C	Python Programming	MJ	4	3	-	2	5	18	50	09	25	-	-	09	25	100
14-ITM209-2C	Data Mining & Warehouse	MJ	4	3	-	2	5	18	50	09	25	-	-	09	25	100
14-DSM202-2C	Computer Organization and Architecture	MJ	4	3	-	2	5	18	50	09	25	-	-	09	25	100
14-DSE201-2C OR 14-DSE202-2C OR 14-DSE203-2C	Advance Database Management System OR Optimization Techniques OR Computer Network	MN	4	3	-	2	5	18	50	09	25	-	-	09	25	100
14-AEC222-2C	Environment Conservation & Disaster Management	AEC	2	2	-	-	2	09	25	09	25	-	-	-	-	50
14-SEC204-2C	Data Analysis using Excel	SEC	2	-	-	4	4	-	-	-	-	09	25	09	25	50
14-VAC211-2C	Human Values and Ethics	VAC	2	1	1	-	2	09	25	09	25	-	-	-	-	50
Total			22	15	1	12	28	-	250	-	150	-	25	-	125	550

Program Name: Bachelor of Science in Data Science

Abbreviation Name: B.Sc. DS

Semester: V

Program Code: ET111

With effect from: 2024-25

Course Code	Course Name	Type of Course	Credit	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	University Assessment		Continuous Assessment		University Assessment		Continuous Assessment		
								Min	Max	Min	Max	Min	Max	Min	Max.	
15-DSM301-3C	Artificial Intelligence	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
15-DSM302-3C	Data Modelling & Visualization	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
15-DSM303-3C	Computer Vision	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
15-DSE301-3C OR 15-ITE303-3C OR 15-DSE302-3C	Cloud Computing OR Wireless Networks OR Internet of Things	MN	4	3	0	2	5	18	50	09	25	-	-	09	25	100
15-DSE303-3C OR 15-DSE304-3C OR 15-DSE305-3C	Cryptography and Network security OR Full Stack Web Development OR Mobile Computing	MN	4	3	0	2	5	18	50	09	25	-	-	09	25	100
15-SEC310-3C	Entrepreneurship Skills	SEC	2	0	0	4	4	-	-	-	-	09	25	09	25	50
Total			22	15	0	14	29	-	250	-	125	-	25	-	150	550

Program Name: Bachelor of Science in Data Science

Abbreviation Name: B.Sc. DS

Semester: VI

Program Code: ET111

With effect from: 2024-25

Course Code	Course Name	Type of Course	Credit	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	University Assessment		Continuous Assessment		University Assessment		Continuous Assessment		
								Min.	Max	Min.	Max	Min.	Max	Min	Max	
16-DSM304-3C	Machine Learning	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
16-DSM305-3C	Big Data Analytics	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
16-DSM306-3C	Time Series data Analysis	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
16-DSE306-3C OR 16-DSE307-3C OR 16-DSE308-3C	Ethical Hacking & Cyber Security OR Image Processing OR Digital Communication	MN	4	3	0	2	5	18	50	09	25	-	-	09	25	100
16-AEC223-3C	Social Media and Blog Writing	AEC	2	0	0	4	4	-	-	-	-	09	25	09	25	50
16-DSM307-3C	Internship in Major Specific Course	MJ	4	0	0	8	8	-	-	-	-	18	50	18	50	100
Total			22	12	0	20	32	-	200	-	100	-	75	-	175	550

Program Name: Bachelor of Science in Data Science (Honours)

Abbreviation Name: B.Sc. DS

Semester: VII

Program Code: ET111

With effect from: 2024-25

Course Code	Course Name	Type of Course	Credit	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	University Assessment		Continuous Assessment		University Assessment		Continuous Assessment		
								Min.	Max	Min.	Max	Min.	Max	Min	Max.	
17-ITM401-4C	Deep Learning	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
17-DSM401-4C	Natural Language Processing	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
17-ITM403-4C	Research Methodology	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
17-DSE401-4C OR 17-DSE402-4C OR 17-DSE403-4C	Virtual and Augmented Reality OR Computational Intelligence OR Data Analytics with Tableau	MN	4	3	0	2	5	18	50	09	25	-	-	09	25	100
17-DSM402-4C	On the Job Training	OJT	6	0	0	12	12	-	-	-	-	27	75	27	75	150
Total			22	12	0	20	32	-	200	-	100	-	75	-	175	550

Program Name: Bachelor of Science in Data Science (Honours with Research)

Abbreviation Name: B.Sc. DS

Semester: VII

Program Code: ET111

With effect from: 2024-25

Course Code	Course Name	Type of Course	Credit	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	University Assessment		Continuous Assessment		University Assessment		Continuous Assessment		
								Min.	Max	Min.	Max	Min.	Max	Min	Max.	
17-ITM401-4C	Deep Learning	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
17-DSM401-4C	Natural Language Processing	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
17-ITM403-4C	Research Methodology	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
17-DSE401-4C OR 17-DSE402-4C OR 17-DSE403-4C	Virtual and Augmented Reality OR Computational Intelligence OR Data Analytics with Tableau	MN	4	3	0	2	5	18	50	09	25	-	-	09	25	100
17-DSM403-4C	Research Project-I	RP	6	0	0	12	12	-	-	-	-	27	75	27	75	150
Total			22	12	0	20	32	-	200	-	100	-	75	-	175	550

Program Name: Bachelor of Science in Data Science (Honours)

Abbreviation Name: B.Sc. DS

Semester: VIII

Program Code: ET111

With effect from: 2024-25

Course Code	Course Name	Type of Course	Credit	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	University Assessment		Continuous Assessment		University Assessment		Continuous Assessment		
								Min.	Max	Min.	Max	Min.	Max	Min	Max.	
18-DSM404-4C	Image and Video Analytics	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
18-DSM405-4C	Parallel Programming	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
18-ITM408-4C	Research and Publication Ethics	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
18-DSE404-4C OR 18-DSE405-4C OR 18-DSE406-4C	Green Computing OR Block Chain & Crypto currency OR Sensor and Actuators	MN	4	3	0	2	5	18	50	09	25	-	-	09	25	100
18-DSM406-4C	On-the-Job Training	OJT	6	0	0	12	12	-	-	-	-	27	75	27	75	150
Total			22	12	0	20	32	-	200	-	100	--	75	--	175	550

Program Name: Bachelor of Science in Data Science (Honours with Research)

Abbreviation Name: B.Sc. DS

Semester: VIII

Program Code: ET111

With effect from: 2024-25

Course Code	Course Name	Type of Course	Credit	Hours per week				Theory (Marks)				Practical (Marks)				Total (Marks)
				L	T	P	Total	University Assessment		Continuous Assessment		University Assessment		Continuous Assessment		
								Min.	Max	Min.	Max	Min.	Max	Min	Max.	
18-DSM404-4C	Image and Video Analytics	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
18-DSM405-4C	Parallel Programming	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
18-ITM408-4C	Research and Publication Ethics	MJ	4	3	0	2	5	18	50	09	25	-	-	09	25	100
18-DSE404-4C OR 18-DSE405-4C OR 18-DSE406-4C	Green Computing OR Block Chain & Crypto currency OR Sensor and Actuators	MN	4	3	0	2	5	18	50	09	25	-	-	09	25	100
18-DSM407-4C	Research Project-II	MJ	6	0	0	12	12	-	-	-	-	27	75	27	75	150
Total			22	12	0	20	32	-	200	-	100	--	75	--	175	550

List of Multidisciplinary Courses (MD)

Sr. No.	Course Code	Course Name	Credit
1	11MDC201-1C	Basic Mathematics- I	4
2	12MDC202-1C	Introduction to Digital Electronics	4
3	13MDC203-2C	Computational Statistics	4

List of Ability Enhancement Courses (AEC)

Sr. No.	Course Code	Course Name	Credit
1	11-AEC202-1C	Business Communication	2
2	12-AEC201-1C	Personality Development	2
3	13-AEC221-2C	Functional Grammar and Composition	2
4	14-AEC222-2C	Environment Conservation & Disaster Management	2
5	16-AEC223-3C	Social Media and Blog Writing	2

List of Skill Enhancement Courses (SEC)

Sr. No.	Course Code	Course Name	Credit
1	11-SEC206-1C	IT Workshop	2
2	12-SEC202-1C	Digital Marketing	2
3	13-SEC203-2C	Web Programming	2
4	14-SEC204-2C	Data Analysis using Excel	2
5	15-SEC310-3C	Entrepreneurship Skills	2

List of Value Addition Courses (VAC/IKS)

Sr. No.	Course Code	Course Name	Credit
1	11-IKS201-1C	Indian Constitution	2
2	12-VAC201-1C	Yoga and Wellness	2
3	13-IKS202-2C	Vedic Mathematics	2
4	14-VAC211-2C	Human Values and Ethics	2

Internship Course

Sr. No.	Course Code	Course Name	Credit
1	16-DSM307-3C	Internship in Major Specific Course	4