

SVKM's NMIMS Deemed-to-be University
Mukesh Patel School of Technology Management and Engineering

Program Structure for B Tech Data Science (Batch 2025-29)					
Year of the Programme: First Year (Academic Year 2025-26)					
Semester - I			Semester - II		
S. No.	Name of the Course	Credits	S. No.	Name of the Course	Credits
1	Calculus	4	1	Linear Algebra and Differential Equations	4
2	Physics	4	2	Programming with Python	2
3	Basic Electrical and Electronics Engineering	3	3	Elements of Biology	3
4	Computational Thinking for Problem Solving	4	4	Principles of Economics and Management	3
5	Engineering Graphics and Design	2	5	Quantum Physics	3
6	English Communication	1	6	Product Realization	2
7	Engineering Ethics	1	7	Data Wrangling	2
8	Indian Knowledge System	0	8	Essential Electronics Practices	1
9	Constitution of India	0	9	Technical Communication	1
			10	Environmental Science	0
Total	9	19	Total	10	21
Year of the Programme: Second Year (Academic Year 2026-27)					
Semester - III			Semester - IV		
S. No.	Name of the Course	Credits	S. No.	Name of the Course	Credits
1	Discrete Mathematics	3	1	Optimization Methods	3
2	Data Structures and Algorithms	3	2	Statistical Structures in Data and Inference	3
3	Managing Uncertainty	3	3	Fundamentals of Embedded Systems and IoT	3
4	Management Accounting for Engineers	2	4	Information Security and Privacy	2
5	Introduction to Data and Signal Analysis	2	5	Program Elective - II	3
6	Object Oriented Programming	2	6	Computer Systems and Networking	3
7	Data Handling and Visualization	2	7	Database Management Systems	3
8	Object Oriented Programming Lab	1	8	Database Management Systems Lab	1
9	Data Structures and Algorithms Lab	1	9	Design Experience I	1
10	Program Elective - I	2			
11	Community Service	0			
Total	11	21	Total	9	22
Year of the Programme: Second Year (Academic Year 2027-28)					
Semester - V			Semester - VI		
S. No.	Name of the Course	Credits	S. No.	Name of the Course	Credits
1	Applied Artificial Intelligence	3	1	Applications of Machine Learning	2
2	Foundations of Machine Learning	4	2	Multi-modal Data Processing and Learning	3
3	Program Elective - III	4	3	Generative AI Systems and Applications	3
4	Program Elective - IV	4	4	Neural Networks and Deep Learning	3
5	Open Elective - I	3	5	Program Elective - V	3
6	Open Elective - II	3	6	Open Elective - III	3
7	Design Experience II	2	7	Open Elective - IV	3
			8	Design Experience III	2
			9	Interpersonal Skills	1
			10	Transforming Ideas to Innovation	1
Total	7	23	Total	10	24

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Year of the Programme: Fourth Year (Academic Year 2028-29)					
Semester - VII			Semester - VIII		
S. No.	Name of the Course	Credits	S. No.	Name of the Course	Credits
1	Agile-driven Software Testing	3	1	Project	10
2	Speech and Natural Language Processing	2			
3	Big Data Analytics	3			
4	Program Elective - VI	4			
5	Open Elective - V	3			
6	Capstone Project	5			
Total	6	20	Total	1	10
Total Credits for the Programme		160			
Total No. of Subjects		63			