

**SVKM's Narsee Monjee Institute of Management Studies**  
**Mukesh Patel School of Technology Management & Engineering**

SVKM's NMIMS

School Name: Mukesh Patel School of Technology Management & Engineering (Campus: Chandigarh)

Teaching Scheme for Academic Year: 2022-23 (Batch: 2022-26)

Name of the Programme: B Tech Computer Science and Engineering (Data Science)								Year of the Programme: First Year				Semester: I													
Sr. No.	Module / Subject Code	Name of the Module	Area / Discipline	Theory Hours per week	Practicals Hours per week	Tutorials Hours per week	Total no. of hours for the subject in a term	Credits	Duration of Examination (Hrs)		Mode of Exam	Examination Scheme (Weightage)								Template Codes	Category	GR applicable (Yes/ No)	Remarks	Academic council date and page number	
									Term End Examination	Only ICA		Distribution of ICA Marks					Term End Examination		Total						
											Test I	Test II	Term work *	Total Marks	Scaled to (Marks)	Marks (Question Paper)	Scaled to (Marks)	Scaled Marks (ICA+ TEE)	Weightage %						
1	702BS0C001	Calculus	BSH-Mathematics	3	0	1	60	4	3	--	Written	10	10	30	50	50	100	50	100	100	7031	COMP	Yes	#	
2	702BS0C059	English Communication	BSH-English	0	2	0	30	1	--	--	--	--	--	50	50	50	--	--	50	100	7032	COMP	No	Only ICA	
3	702EX0C001	Basic Electrical and Electronics Engineering	Electronics & Telecommunication	2	2	0	60	3	3	--	Written	10	10	30	50	50	100	50	100	100	7031	COMP	Yes	#	
4	702CO0C001	Programming for Problem Solving	Computer Engineering	2	4	0	90	4	3	--	Written	10	10	30	50	50	100	50	100	100	7031	COMP	Yes	#	
5	702ME0C001	Engineering Graphics and Design	Mechanical Engineering	2	2	0	60	3	3	--	Practical	10	10	30	50	50	100	50	100	100	7031	COMP	Yes	** NUE	
6	702BS0C049	Elements of Biology	BSH-Biology	3	0	0	45	3	3	--	Written	10	10	30	50	50	100	50	100	100	7031	COMP	Yes	#	
7	702BS0C005	Professional Ethics	BSH-Other	1	0	0	15	1	--	--	--	10	10	30	50	50	--	--	50	100	7032	COMP	No	Only ICA	
8	702BS0C006	Constitution of India	BSH-Other	1	0	0	15	0	--	---	---	--	--	50	50	50	--	--	50	100	7032	COMP	No	Only ICA	
9	702BS0C011	Design Thinking	BSH-Other	2	0	0	30	0	--	--	--	--	--	50	50	50	--	--	50	100	7032	COMP	No	Only ICA	
Total				16	10	1	405	19	15			60	60	330	450	450	500	250	700						

\* Term Work = Viva / Presentations/ Journals/ assignments/ quizzes / MCQs/Business plans/Role plans etc.

\*\* NUE = Non University Examination (Term End Examination conducted at school level)

# Calculus, Programming for Problem Solving, Elements of Biology - Syllabus common for B Tech/ MBA Tech (all programs) except CSBS and CSDS, can use common question paper.

English Communication - This course focuses on introducing the students to the basics of English language and formal communication, which requires to be assessed continuously throughout the semester.

# Basic Electrical and Electronics Engineering - Syllabus common for B Tech Civil , Mechanical , AI, AI and ML/ AI and DS MBA Tech (all programs), can use common question paper.

\*\* Engineering Graphics and Design - This course requires showcasing software competency along with drawing skills. Evaluation is done in NUE mode at the end of the semester.

Professional Ethics - This course focuses on instilling professional ethics, which are taught and assessed throughout the semester.

Constitution of India - This course focuses on making the students aware of the Constitution of India, which is taught and assessed throughout the semester.

Design Thinking - This course helps to develop a human-centric approach to problem-solving, which requires to be assessed continuously throughout the semester.

Date : 19.09.2022  
 Sangeeta/  
 Prepared / Verified by

Dr. Ajay Phirke  
 HoD, BSH- Department

Dr. Alka Mahajan  
 Dean, MPSTME

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School Name: Mukesh Patel School of Technology Management & Engineering (Campus: Chandigarh)

Teaching Scheme for Academic Year: 2022-23 (Batch: 2022-26)

Name of the Programme: B Tech Computer Science and Engineering (Data Science)								Year of the Programme: First Year								Semester: II										
Sr. No.	Module / Subject Code	Name of the Module	Area / Discipline	Theory Hours per week	Practicals Hours per week	Tutorials Hours per week	Total no. of hours for the subject in a term	Credits	Duration of Examination		Mode of Exam Written/ OffLine/Online/Computer based/ Practical/Viva /Jury/ Presentation	Examination Scheme (Weightage)						Template Codes	Category	GR applicable (Yes/ No)	Remark	Academic council date and page number				
									Term End Examination	Only ICA		Distribution of ICA Marks				Term End							Total			
													Test I	Test II	Term work *	Total Marks	Scaled to (Marks)	Marks (Question Paper)	Scaled to (Marks)	Scaled Marks (ICA+ TEE)	Weightage %					
1	702BS0C051	Linear Algebra and Differential Equations	BSH-Mathematics	3	0	1	60	4	3	--	Written	10	10	30	50	50	100	50	100	100	7031	COMP	Yes	#		
2	702BS0C002	Physics	BSH-Physics	3	2	0	75	4	3	--	Written	10	10	30	50	50	100	50	100	100	7031	COMP	Yes	#		
3	702CS0C002	Digital Circuits and Computer Architecture	Computer Science	3	2	0	75	4	3	--	Written	10	10	30	50	50	100	50	100	100	7031	COMP	Yes			
4	702CO0C004	Principles of Economics and Management	Technology Management - General Management	3	0	0	45	3	3	--	Written	10	10	30	50	50	100	50	100	100	7031	COMP	Yes			
5	702CI0C014	Environmental Science	Civil Engineering	1	0	1	30	2	--	--	--	10	10	30	50	50	--	--	50	100	7032	COMP	No	Only ICA		
6	702DB0C011	Python for Data Analysis	Data Science	0	4	0	60	2	3		Practical	10	10	30	50	50	100	50	100	100	7031	COMP	Yes	**NUE		
7	702ME0C016	Digital Manufacturing Laboratory	Mechanical Engineering	0	2	0	30	1	--		--	--	--	50	50	50	--	--	50	100	7032	COMP	No	Only ICA		
8	702EX0C021	Electrical and Electronics Workshop	Electronics & Telecommunication	0	2	0	30	1	--	--	--	--	--	50	50	50	--	--	50	100	7032	COMP	No	Only ICA		
9	702BS0C007	Critical Thinking	BSH-Other	2	0	0	30	0	--	--	--	--	--	50	50	50	--	--	50	100	7032	COMP	No	Only ICA		
Total				15	12	2	435	21	15			60	60	330	450	450	500	250	700							

\* Term Work = Viva / Presentations/ Journals/ assignments/ quizzes / MCQs/Business plans/Role plans etc.

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\*\*Python for Data Analysis - NUE based course because at the end semester the exam will be in the lab with project-based problems which will help the students to become more confident about their knowledge and skills in a project-based course like python.

# Syllabus common for B Tech all program except Civil, Mechanical, CSBS and CSDS, can use common question paper.

# Physics - Syllabus common for B Tech/ MBA Tech (all programs) except Civil, Mechanical, CSBS and CSDS, can use common question paper.

Environmental Science - The course is for the general awareness about the environment.

Digital Manufacturing Laboratory - This course is a practice-oriented course. The evaluation is purely based on periodic assessments based on the jobs prepared by the students.

Electrical and Electronics Workshop - his course empowers students to gather practical knowledge and skills using Internal Continues Assessment (ICA) throughout the semester.

Critical Thinking - This course inculcates and encourages Critical thinking behaviour, which is taught and assessed throughout the semester.

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## SVKM's NMIMS

Mukesh Patel School of Technology Management &amp; Engineering

Teaching &amp; Examination Scheme of B Tech Computer Science and Engineering (Data Science) (Not in collaboration with VT) Batch (2022-26)

## Semester III

w.e.f. 2023-24

S. No.	Module / Subject Code	Name of the Module	Teaching Scheme (Hours / Week)			Credit/s	Total Contact hours	Examination Scheme					Remarks	
			L	P	T			Duration (Hrs)	Marks			GR applicable (Yes / No)		
									TEE	ICA				Scaled to (Marks)
										TW	LW			
1		Probability and Statistics	2	2	0	3	60	3	30	20	100	50	Yes	
2		Data Wrangling	1	4	0	3	75	3	30	20	100	50	Yes	
3		Optimization Methods	3	2	0	4	75	3	30	20	100	50	Yes	
4		Discrete Mathematics	2	0	1	3	45	3	50	0	100	50	Yes	
5		Data Structures and Algorithms	3	2	0	4	75	3	30	20	100	50	Yes	
6		Management Accounting for Engineers	2	0	0	2	30	3	50	0	100	50	Yes	
7		Technical Communication	0	0	1	1	15	--	0	50	--	--	No	Only ICA**
8		Community Service	0	0	0	0	0	--	50	0	--	--	No	Only ICA**
	Total		13	10	2	20	375							

L - Lecture, P - Practical, T - Tutorial, C - Credits, TEE - Term End Examination, ICA - Internal Continuous Assessment, TW - Term Work, LW - Lab Work, NUE = Non University Examination (Term End Examination conducted at school level)

\*\*Technical Communication - The topics included in this 1 credit course requires comprehensive and rigorous continuous assessment to ensure in-depth understanding, including formative (Topic based) and summative (end of unit) assessment that eliminates the need for term end Assessment.

\*\*Community Service - Course provides students a real-life hands on experience in the community and sensitizes them towards the societal challenges like poverty, illiteracy, hunger, child labor and inequality.

Date: 22/12/22

Prepared / Verified by

Chairperson, 3+1+1 Program in coordination with Virginia Tech, USA

Dr. Alka Mahajan

Dean, MPSTME

  
Dr. Dhendra Mishra

  
Dr. Alka Mahajan

## Semester IV

w.e.f. 2023-24

Semester IV														w.e.f. 2023-24			
S. No.	Module/ Subject Code	Name of the Module	Teaching Scheme (Hours / Week)			Credits	Total Contact hours	Examination Scheme						Remark s			
								Duration (Hrs)	Marks			TEE					
			TEE	ICA					Marks (Question Paper)	Scaled to (Marks )							
				T W	L W						Yes/ No						
1		Statistical Methods	2	2	0	3	60	3	30	20	100	50	Yes				
2		Machine Learning	3	2	0	4	75	3	30	20	100	50	Yes				
3		Introduction to Data, Signal, and Image Analysis	3	2	0	4	75	3	30	20	100	50	Yes				
4		Database Management Systems	2	2	0	3	60	3	30	20	100	50	Yes				
5		Web Programming*	2	2	0	3	60	3	30	20	100	50	No	NUE*			
6		Data Handling and Visualization	1	2	0	2	30	3	50	0	100	50	Yes				
	Total		14	10	0	19	360										

L - Lecture, P - Practical, T - Tutorial, C - Credits, TEE - Term End Examination, ICA - Internal Continuous Assessment, TW - Term Work, LW - Lab Work, NUE = Non University Examination (Term End Examination conducted at school level)

\*Web Programming - Practical Oriented Course, lab examination will be conducted at school level

Date: 22/12/22

Prepared / Verified by



Dr. Dharendra Mishra

Chairperson, 3+1+1 Program in coordination with Virginia Tech, USA



Dr. Alka Mahajan

Dean, MPSTME