Course Structure - B Tech Computer Science and Engineering (Data Science)- 3+1+1 (Virginia Tech) program - (Batch 2020-24)

Year of the Programme: First Year (Academic Year 2020-21)

	Semester - I			Semester - II	
S.No	Course Name	Credits	S. No	Course Name	Credits
1	Introduction to Business Analytics and Business Intelligence	3	1	Principles of Accounting -I	3
2	Business Calculus	4	2	Principles of Economics -I	3
3	Introductory Psychology	3	3	Introduction to Business Statistics, Analytics & Modeling-I	3
4	Communication Skills-I	3	4	Communication Skills-II	3
5	Foundations of Business	3	5	Critical Thinking in Humanities	3
6	Engineering Graphics and Design	1	6	Physics	3
7	Programming for Problem Solving	3	7	Object Oriented Programming and Design	3
8	Basics of Electrical and Electronics Engineering	3	8	Computer Organization and Architecture	3
Total		23	Total		24

Year of the Programme: Second Year (Academic Year 2021-22)

	Semester - III			Semester - IV	
S.No	Course Name	Credits	S. No	Course Name	Credits
1	Principles of Accounting- II	3	1	Operations and Supply Chain Management	3
2	Principles of Economics- II	3	2	Introduction to Business Analytics Modeling	3
3	Introduction to Business Statistics, Analytics and Modeling-II	3	3	Systems Analysis and Design	3
4	Introduction to Programming in Python	3	4	Introduction to International Business	3
5	Foundations of Entrepreneurship	3	5	Introduction to Chemistry	3
6	Operating Systems	3	6	Careers in Business Information Technology	1
7	Data Structures and Algorithms	3	7	Design and Analysis of Algorithms	3
8	Business Visualization	2			
9	Community Service	0			
Total		23	Total		19

Year of the Programme: Third Year (Academic Year 2022-23)

	Semester - V			Semester - VI	
S.No	Course Name	Credits	S. No	Course Name	Credits
1	Advanced Modeling for Business Analytics	3	1	Networks and Telecommunications	3
2	Advanced Business Computing and Applications	3	2	Information Security	3
3	Marketing Management	3	3	Database Management System	3
4	Principles of Management	3	4	Project Management	3
5	Design an Art for Consumers	3	5	Formal Language and Automata Theory	3
6	Data Wrangling	3	6	Artificial Intelligence	3
7	Machine Learning	3	7	Digital Image Video Processing	2
Total		21	Total		20

Year of the Programme: Fourth Year (Academic Year 2023-24)

	Semester - VII			Semester - VIII	
S. No	Course Name	Credits	S. No	Course Name	Credits
1	Data Governance, Privacy & Ethics	3	1	Field Study	3
2	Legal and Ethical Environment of Business	3	2	Cybersecurity Analytics for Business	3
3	Introduction to Finance	3	3	Crime and Conflicts in Cyberspace	3
4	Cyber Law and Policy	3	4	Cybersecurity Program Design	3
Total		12	Total		12
Total Credits		**154**			