B. Tech. Engineering Program (After 10) Tentative Course Structure for Batch admitted in 2021-22	
First Year (Common for All Branches)	
Semester - I	**Semester - II**
Mathematics-I	Mathematics-II
Physics-I	Physics-II
Chemistry-I	Introduction to Electrical and Electronics Engineering
Engineering Drawing	Fundamentals of Mechanics-Statics
Mechanical Workshop	Introduction to IT Systems
English	Electrical and Computer Workshop

B. Tech. (After 10) - Tentative Course Structure (Mechanical Engineering)

B. Tech. Integrated (Mechanical Engineering) Second Year	
Semester - III	**Semester - IV**
Mathematics-III	Mathematics-IV
Physics-III	Physics-IV
Chemistry-II	Basic Thermodynamics
Elements of Mechanical Engineering	Solid Mechanics
Engineering Graphics & Design	Mechanical Measurement and Control
Basics of Manufacturing Engineering	Manufacturing Workshop
	Constitution of India

B. Tech. Integrated (Mechanical Engineering) Third Year	
Semester -V	**Semester - VI**
Calculus	Linear Algebra and differential equations
Theory of Machines and Mechanism	Introduction to 3D Modeling
Basics of Machine Drawing	Industrial Engineering
Materials Science	Python for Mechanical Engineers
Programming for Problem Solving	Fundamentals of Engineering Design
Design Thinking	Critical Thinking
English Communication	Professional Ethics

B. Tech. Integrated (Mechanical Engineering) Fourth Year	
Semester -VII	**Semester - VIII**

Partial Differential Equations and Laplace transforms	Probability Theory and Statistical Methods
Engineering Mechanics	Strength of Materials
Engineering Thermodynamics	Kinematics and Dynamics of Machines
Manufacturing Processes-I	Applied Thermodynamics
Machine Drawing	Machine Shop-I
Materials Engineering	Principles of Economics & Management
Management Accounting for Engineers	Open Elective - I (Basic Sci)

B. Tech. Integrated (Mechanical Engineering) Fifth Year & Sixth Year	
Semester –IX	**Semester - X**
Design of Machine Elements	Heat Transfer
Manufacturing Processes - II	CAD/CAM/CIM
Fluid Mechanics	Machine Shop - II
Department Elective - I	Department Elective - III
Department Elective - II	Department Elective - IV
Open Elective - II (Humanities & Social Sciences)	Open Elective - IV (Technical Pool)
Technical Internship	
Semester –XI	**Semester - XII**
Finite Element Analysis	Major Project
Mechanical Mesurements and Metrology	
Department Elective - V	
Department Elective - VI	
Open Elective - VI (Mixed Pool)	
Minor Project	

B. Tech. (After 10) - Tentative Course Structure (Computer Engineering)

B. Tech. Integrated (Computer Engineering) Second Year & Third Year	
Semester - III	**Semester - IV**
Mathematics-III	Mathematics-IV
Physics-III	Chemistry-II
C Programming	Physics-IV
Basic Electronics	Python Programming
Computer Hardware and Maintenance	Multimedia and Animation
Semester -V	**Semester - VI**
Calculus	Linear Algebra and differential equations
Elements of Biology	Computer Graphics
Programming for Problem Solving	Fundamentals of Ecommerce
Basic Data Structures	Java Programming
Fundamentals of Website Designing	Design Thinking
Critical Thinking	English Communication
Professional Ethics	
B. Tech. Integrated (Computer Engineering) Fourth Year & Fifth Year	
Semester –VII	**Semester - VIII**
Probability and Statistics	Discrete Mathematics
Environmental Science	Principles of Economics and Management
Management Accounting for Engineers	Microprocessor and Microcontroller
Digital Logic Design	Design and Analysis of Algorithms
Database Management Systems	Theoretical Computer Science
Computer Networks	Operating Systems
Computer Organization and Architecture	Open Elective I
Advanced Data Structures	
Community Service	
Semester –IX	**Semester - X**
Software Engineering	System Security
Artificial Intelligence	Object oriented Software Engineering
Image and Video Processing	Data Mining
Web Programming	Department Elective II
Department Elective I	Department Elective III

Open Elective II	Open Elective IV
Open Elective III	Open Elective V
Software Engineering	System Security
Technical Internship	
Semester –XI	**Semester - XII**
Cloud Computing	Major Project
Department Elective IV	
Department Elective V	
Department Elective VI	
Open Elective VI	
Minor Project	

B. Tech. (After 10) - Tentative Course Structure (Information Technology)

B. Tech. Integrated (Information Technology) Second Year , Third Year & Fourth Year	
Semester - III	**Semester - IV**
Mathematics - III	Mathematics -IV
Physics-III	Chemistry-III
Communication Skill	Physics-IV
Chemistry-II	Data Structures and Algorithms
Programming for Problem Solving	Python Programming
Constitution of India	Professional Ethics
Semester -V	**Semester - VI**
Calculus	Linear Algebra and ordinary differential equations
Intelligence of Biological Systems	Unix Shell Programming
Introduction to Data Communication and Networks	Introduction to Web Development
Multimedia and Animation	Life Skills
Introduction to IT Infrastructure Landscape	Implementation of Technology
Design Thinking	Critical Thinking
	Innovation and Entrepreneurship
Semester -VII	**Semester - VIII**
Discrete Mathematics	Probability and Statistics
Environmental Science	Image & Video Processing
Principles of Economics and Management	Operating Systems

Digital Logic & System Design	Computer Networks
Database Management Systems	Web Programming
Computer Architecture	Principles of Artificial Intelligence
Object Oriented Programming	Open Elective - I (Mixed Pool)
Community Service	

B. Tech. Integrated (Information Technology) Fifth Year & Sixth Year	
Semester –IX	**Semester - X**
Human Computer Interaction	Management Accounting for Engineers
Embedded Systems	Mobile Application Development
Software Engineering	Machine Learning
Elective - I (Any One)	Software Project Management
Elective - II (Any One)	System Administration
Open Elective - II (Mixed Pool)	Elective - III (Any One)
Open Elective - III (Humanities)	Elective - IV (Any One)
	Open Elective - IV (Basic Science)
	Open Elective - V (Technical Pool)
Semester –XI	**Semester - XII**
Elective - V (Any One)	Major Project
Elective - VI (Any One)	
Information Systems Security	
Cloud Computing	
Open Elective - VI (Technical Pool)	
Summer Internship	
Minor Project	

B. Tech. (After 10) - Tentative Course Structure (Data Science)

B. Tech. Integrated (Computer Engineering) Second Year & Third Year	
Semester - III	**Semester - IV**
Mathematics-III	Mathematics-IV
Physics-III	Physics-IV
Chemistry-II	Python Programming
C Programming	Multimedia and Animation
Basic Electronics	Constitution of India
Computer Hardware and Maintaince	
Semester - V	**Semester - VI**

Calculus	Linear Algebra and Differential Equations
Elements of Biology	Computer Graphics
Programming for Problem Solving	Fundamentals of Ecommerce
Basic Data Structures	Java Programming
Fundamentals of Website Designing	Critical Thinking
Design Thinking	Professional Ethics
English Communication	

B. Tech. Integrated (Data Science) Fourth Year, Fifth Year & Sixth Year [2020-2021]	
Semester - VII	**Semester - VIII**
Optimization Methods	Stochastic processes and applications
Environmental Science	Management Accounting for Engineers
Principles of Economics and Management	Statistical Structures in Data and Inference
Managing Uncertainty	Data Base Management System
Data Gathering and Cleaning- ETL process	Data handling and visualization
Information Security and Privacy	Introduction to Data, Signal, and Image Analysis
Community Services	Open Elective- I(TP)
Semester - IX	**Semester - X**
Introduction to Modern Application Development	Deep Learning
Artificial Intelligence	Application of Machine Learning
Foundations of Machine Learning	Department Elective-II
Department Elective-I	Department Elective-II
Department Elective-I	Open Elective-IV (HSC)
Open Elective-II (BSC)	Open Elective-V (TP)
Open Elective-III (Mgt.P)	
Technical Internship	
Semester - XI	**Semester - XII**
Computer Vision	Major Project
Natural Language Processing	
Big Data	
Department Elective-II	
Capstone Project	
Machine Learning Engineering	
Open Elective-VI (TP)	
Minor Project	