Tentative Courses List Sem I AY 2026-27 (Aug 2026 -Nov 2026)						
First Year (2026)	**5th Sem | B Tech Chemical Engineering**	Biocomputing	VLSI Design	Chemical Crystallography	Advanced Statistical Physics	Special Topics in HSS: Drawing Connections: Environmental Perception and Visual Anthropology
Engineering Graphics	Chemical Reaction Engineering - II	AI Applications in Life Sciences	Physics of Transistors	Applied Chemical Biology	Semiconductor Optoelectronics	Special Topics in HSS: Appreciation of Classical Indian Music
Calculus of Single Variable and Linear Algebra	Separation Processes - I	**Additional Courses: Civil Engineering**	Dynamic Behaviour of Electric Machines	Interpretative Organic Spectroscopy	Nanomagnetism and Spintronics	Perspectives on Indian Civilization
Computing	Process Dynamics and Control	Civil Engineering Materials	Digital Control Systems	Molecular Spectroscopy	Introduction to Einstein's Theory of General Relativity	Political Thought
Design, Innovation, and Prototyping	Integrated Chemical Engineering Lab-I	Introduction to Process Safety	Microfabrication and Semiconductor Processes	Asymmetric Synthesis and Catalysis	Gravitational Wave Astronomy	Ancient Indian Architecture
Introduction to writing I	**5th Sem | B Tech Civil Engineering**	Advanced Geotechnical Engineering	CMOS Analog IC Design	Metabolism & Biosynthesis	**Additional Courses: Earth Sciences**	Quantitative Research Methods in Social Sciences
Undergraduate Science Laboratory	Soil Mechanics	Advanced Structural Analysis	Biomedical Ultrasound	Introduction to Molecular Dynamics	Modeling of Earth System and Sustainability	Qualitative Research Methods
Second Year (2025)	Design of Steel Structures	Advanced Engineering Hydrology	Smart Grid	Statistical thermodynamics and its applications in chemistry	Archaeology: Theory and Methods	Education, Technology and Society
Chemical Engineering Thermodynamics	Hydrology and Hydraulics	Structural Dynamics	Advanced Wireless Communications	Organic Electronics	Earth Surface Processes in the Anthropocene	A Critical Journey Through Select Thoughts and Theories
Process Fluid Mechanics	Transportation Engineering	Advanced Hydraulic Engineering	High Frequency Engineering	Bio-inorganic Chemistry	Biodiversity Conservation and Sustainable Development	Digital Cultures and New Media
Heat Transfer	**5th Sem | B Tech Computer Science and Engineering**	Slopes and Retaining Structures	Computer Vision	Chemistry of Energy Materials	Geobiology	Scarred Nations: Partition in the Indian Subcontinent
Software Tools & Techniques for AI	Software Tools and Techniques for CSE	Air Pollution Control Engineering	5G and Beyond	**Additional Courses: Mathematics**	Sequence Stratigraphy	Literature, Theory and Social Context
General Education II	Operating Systems	Pavement Materials and Design	Photonics – Principles and Applications	Basic Algebra	Applied Micropaleontology	Critical Perspectives in Sociology
Introduction to Philosophy	Computer Networks	Infrastructure Systems: Planning and Management	Mixed Signal IC Design	Linear Algebra	Environmental Geosciences	
Introduction to Quantum Physics	Foundations of AI: Multiagent Systems	Advanced Concrete Technology	Special Topics in Electrical Engineering: Economics of Regulation in India	Real Analysis of One Variable	Reservoir Modelling and Simulation	
Solid State Physics	**5th Sem | B Tech Electrical Engineering**	Hydrodynamics of Sediment Transport	**Additional Courses: Mechanical Engineering**	Topology	Anthropocene: Human Impact on the Earth	
Materials for the Future	Engineering Electromagnetics	Special Topics in Civil Engineering: Domestic Wastewater Engineering (Treatment and Reuse)	Special Topics in Mechanical Engineering: Nondestructive Testing/Evaluation	AI and Mathematics	Special Topics in Earth Science: Microwave Remote Sensing	
Digital Systems	Analog & Mixed Signal Circuits	Special Topics in Civil Engineering: Administration of Contracts in the Infrastructure Industry	Foundations of Fluid Dynamics	Commutative Algebra	**Additional Courses: Cognitive Science**	
Biology for Engineers	Digital Signal Processing	**Additional Courses: Chemical Engineering**	Computational Fluid Dynamics	Number Theory	Computation and Cognition	
Physics of Materials	Power Electronics	Chemical Engineering Practice in Industry	Human-Robot Interaction	Partial Differential Equations	Fundamentals of Cognitive Psychology	

Materials Selection and Design	**5th Sem | B Tech Mechanical Engineering**	Biochemical Engineering	Advanced Solid Mechanics	Functional Analysis	Research Methods in Cognitive Science	
Fluid Dynamics	Control Systems	Nanoscale Science	Introduction to Robotics	Algebraic Topology	Fundamental Neuroscience	
Principles of Manufacturing Processes	Mechanics of Materials	Advance Transport Phenomena	Elastodynamics and Vibrations	Measure Theory & Probability	Philosophy of Mind	
Calculus of Several Variables (first half)	Heat and Mass Transfer	Advanced Thermodynamics	Mathematical Tools for Mechanical Engineers	Integral Geometry in Imaging Sciences	Emotion and Cognition	
Introduction to Complex Analysis (second half)	Introduction to Manufacturing Systems and Metrology	Advanced Reaction Engineering	**Additional Courses: Materials Engineering**	Fourier Analysis on LCA Groups (first half)	Neural Plasticity	
Materials Thermodynamics	**5th Sem | B Tech Materials Engineering**	Applications of AI in ChE	Material Characterization Techniques	Introduction to Riemannian Geometry	NeuroAI: Neuroscience & Artificial Intelligence	
Earth Materials and Processes	Economics	Engineering Optimization	Deformation Behaviour of Materials	Numerical Analysis for Partial Differential Equations	Special Topics in Cognitive Science: The Multilingual Brain	
Chemical Process Calculations	Polymers, Ceramics and Composites	Flexible Electronics: Materials, Methods and Devices	Structure and Defects of Materials	**Additional Courses: Physics**	Special Topics in Cognitive Sciences: Advanced Writing for Cognitive and Brain Sciences	
Data Structures and Algorithms I	Principles of Metal Extraction and Refining	**Additional Courses: Computer Science and Engineering**	Characterization of Materials	Mathematical Methods of Physics - I	**Additional Courses HSS, MS, Design, IN**	
Signals, Systems, and Random Processes	Materials Processing	Human-Computer Interaction	AI for Materials Engineering	Quantum Mechanics I	Foundational Sanskrit	
Mechanics of Solids	**Additional Courses: Biological Engineering**	Algorithms	Thermo-mechanical Processing	Classical Electrodynamics	Urdu script and poetry	
Geospatial Engineering	Bionanotechnology – Principles and Applications	Computer Systems	**Additional Courses: Chemistry**	Classical Mechanics	Urdu poetry interpretation	
Electrical Machines	Genetic Engineering – Principles and Applications	Natural Language Processing	Electrochemical Science and Engineering	Condensed Matter Physics	Japanese Language for Beginners	
Transport Phenomena in Materials Engineering	Biostatistics	CS Theory Toolkit	Physical Organic Chemistry	Quantum Field Theory I	Advance Japanese Learning	
Statics and Dynamics	Human Physiology	Incentives and Machine learning	Quantum Chemistry	X-ray Scattering: Concepts and Applications	Financial Considerations in Engineering Decisions	
5th Sem | B Tech Artificial Intelligence	Molecular Biotechnology	Deep Learning	Advanced Organic Chemistry	Atomic and Molecular Physics	Ancient Indian Technology	
Introduction to Data Science	Peptide Technologies	Special Topics Course: Algebraic Complexity theory	Transition Metal Chemistry	Quantum Computing and Information	Special Topics: Foundations of User Experience	
Machine Learning (ES 335)	Applied Stem Cells Technologies	**Additional Courses: Electrical Engineering**	AI in Chemistry	Topics in Soft and Active Matter Physics	Special Topics in HSS: Understanding and Designing Comics and Graphic Novels	