

Tentative Course List (August 2025 - December 2025 Semester)									
1st Year	Discrete Mathematics	Computer Science and Engineering	Bionanotechnology – Principles and Applications	Formulation Science and Engineering	Microfabrication and Semiconductor Processes	Structure and Defects of Materials	Algebraic Topology	Carbonate Sedimentology	Introduction to Archaeology
Engineering Graphics	Geospatial Engineering	Software Tools and Techniques for CSE	Genetic Engineering – Principles and Applications	Nanoscale Science	CMOS Analog IC Design	Characterization of Materials	Measure Theory & Probability	Geobiology	Understanding and Designing Comics
Calculus of Single Variable and Linear Algebra	Electrical Machines	Operating Systems	Biochemistry	Advanced Transport Phenomena	Biomedical Ultrasound	Chemistry	Algebraic Number Theory	Special Topics in Earth Science: Microwave Remote Sensing	Political Thought
Computing	Structure of Materials	Computer Networks	Biostatistics	Advanced Thermodynamics	Smart Grid	Electrochemical Science and Engineering	Integral Geometry in Imaging Sciences	Cognitive Sciences	Ancient Indian Architecture
Design, Innovation, and Prototyping	Transport Phenomena in Materials Engineering	Foundations of AI: Multiagent Systems	Human Physiology	Advanced Reaction Engineering	Smart Renewable Energy Systems	Food Chemistry	Numerical Analysis for Partial Differential Equations	Computation and Cognition	Development Economics
Introduction to Writing - 1	Statics and Dynamics	Electrical Engineering	Molecular Biotechnology	Engineering Optimization	Computer Vision	Physical Organic Chemistry	Physics	Fundamentals of Cognitive Psychology	Qualitative Research Methods
Undergraduate Science Laboratory	Analog & Mixed Signal Circuits	Engineering Electromagnetics	Civil Engineering	Flexible Electronics: Materials, Methods and Devices	5G and Beyond	Main Group and Transition Metal Chemistry	Mathematical Methods of Physics I	Research Methods in Cognitive Science	Digital Cultures and New Media
2nd Year	Semiconductor Devices	Analog & Mixed Signal Circuits	Advanced Geotechnical Engineering	Computer Science and Engineering	Special Topics in Electrical Engineering: Economics of Regulation in India	Quantum Chemistry	Quantum Mechanics I	Fundamental Neuroscience	Scarred Nations
Biology for Engineers	Unveiling the Semiconductor World	Digital Signal Processing	Advanced Structural Analysis	Software Engineering and Testing	Selected Topics in Electrical Engineering: Mixed-Signal IC Design	Advanced Organic Chemistry	Classical Electrodynamics	Philosophy of Mind	Literature, Theory and Social Context
General Education II	3rd Year	Power Electronics	Advanced Engineering Hydrology	Human-Computer Interaction	Mechanical Engineering	Interpretative Organic Spectroscopy	Classical Mechanics	Neural Plasticity	Critical Perspectives in Sociology
Introduction to Quantum Physics	Artificial Intelligence	Mechanical Engineering	Advanced Solid Mechanics	Algorithms	Mechatronics	Molecular Spectroscopy	Condensed Matter Physics	Special Topics in Cognitive Sciences: Second Language Acquisition	Reading Philosophy: Classical, Contemporary, and Global Perspectives
Introduction to Philosophy	Foundations of AI: Multiagent Systems	Control Systems	Structural Dynamics	Computer Systems	Foundations of Fluid Dynamics	Asymmetric Synthesis and Catalysis	Topics and Classical Mechanics and Electrodynamics	Special Topics in Cognitive Sciences: Language, Culture and Cognition	Academic Communication: Argumentation and Reasoning
Digital Systems	Machine Learning	Mechanics of Materials	Advanced Hydraulic Engineering	Natural Language Processing	Computational Fluid Dynamics	Chemical Crystallography	Quantum Field Theory I	Design	Techniques of Linguistic and Cultural Documentation
Calculus of Several Variables (First half of Semester)	Chemical Engineering	Heat and Mass Transfer	Slopes and Retaining Structures	Theoretical Foundations of Machine Learning	Advanced Solid Mechanics	Statistical Thermodynamics and its Applications in Chemistry	X-ray Scattering: Concepts and Applications	Communication Design in Science	
Introduction to Complex Analysis (Second half of Semester)	Chemical Reaction Engineering-II	Introduction to Manufacturing Systems and Metrology	Air Pollution Control Engineering	CS Theory Tool Kit	Introduction to Robotics	Bio-inorganic Chemistry	Atomic and Molecular Physics	Special Topics in Design: Game Appreciation and Game Aesthetics	
Science Basket Course	Separation Processes - I	Materials Engineering	Pavement Materials and Design	Incentives and Machine Learning	Fracture Mechanics	Chemistry of Energy Materials	Quantum Computing and Information	Humanities and Social Science	
Thermodynamics	Process Dynamics and Control	Materials Processing	Infrastructure Systems: Planning and Management	Algebraic Complexity Theory	Elastodynamics and Vibrations	Mathematics	Topics in Soft and Active Matter Physics	Foundational Sanskrit	
Materials Thermodynamics	Integrated Chemical Engineering Lab-I	Polymers, Ceramics and Composites	Advanced Concrete Technology	Electrical Engineering	Vapor Liquid Phase Change Phenomena	Basic Algebra	Advanced Statistical Physics	Japan Studies	
Electronic Devices	Civil Engineering	Principles of Metal Extraction and Refining	Special Topics in Civil Engineering: Domestic Wastewater Engineering (Treatment and Reuse)	Electric Vehicle Technology	Special Topics in Mechanical Engineering: Mathematical Methods for Mechanical Engineers	Linear Algebra	Particle Physics and Gauge Theories	Japanese Language for Beginners	
Earth Materials and Processes	Soil Mechanics	5th Year	Special Topics in Civil Engineering: Administration of Contracts	VLSI Design	Materials Engineering	Real Analysis of One Variable	Earth Sciences	Advance Japanese Learning	
Chemical Process Calculations	Design of Steel Structures	Civil Engineering	Chemical Engineering	Physics of Transistors	Science and Technology of Welding and Joining	Topology	Earth Surface Processes in the Anthropocene	Mandarin for Beginners	
Data Structures and Algorithms I	Hydrology and Hydraulics	Construction Technology & Management	Introduction to Polymer Science and Engineering	Dynamic Behaviour of Electric Machines	Nature Inspired Materials Design	Commutative Algebra	Modelling of Earth System and Sustainability	Mandarin for Beginners - II	
Signals, Systems, and Random Processes	Transportation Engineering	Additional courses	Chemical Engineering Practice in Industry	Introduction to Photonics	Deformation Behavior of Materials	Partial Differential Equations	Biodiversity Conservation and Sustainable Development	Ancient Indian Technology	
Mechanics of Solids	4th Year	Biological Engineering	Biochemical Engineering	Digital Control Systems	Advanced Alloy Design and Processing	Functional Analysis	Near Surface Geophysics	Special Topics: Foundations of User Experience	