# UPSEE 2025 Syllabus

**Paper 1 Syllabus (Physics, Chemistry, Mathematics)**

**Physics Syllabus:**

Measurement, Motion in one dimension, Work, Power and Energy, Linear Momentum & Collisions, Rotation of a Rigid Body About a Fixed Axis, Mechanics of Solids and Fluids, Heat and Thermodynamics, Laws of Motion, Motion in two dimensions, Wave, Electrostatics, Current Electricity, Magnetic Effect of Current, Magnetism in Matter, Ray Optics and Optical Instruments, Gravitation, Oscillatory Motion, Electromagnetic Induction, Wave Optics and Modern Physics.

**Chemistry Syllabus:**

Atomic Structure, Chemical Bonding, Acid-Base Concepts, Colloids, Colligative Properties of Solution, Isomerism, IUPAC, Polymers, Redox Reactions, Electrochemistry, Catalysis, Chemical Equilibrium and Kinetics, Periodic Table, Thermochemistry, General Organic Chemistry, Carbohydrates, Solid State, Petroleum.

**Mathematics Syllabus:**

Algebra, Co-ordinate Geometry, Calculus, Probability, Trigonometry, Vectors, Dynamics & Statics.

**Paper 2 Syllabus (Physics, Chemistry and Biology)**

**Physics Syllabus:**

Measurement, Motion in one dimension, Work, Power and Energy, Linear Momentum & Collisions, Rotation of a Rigid Body About a Fixed Axis, Mechanics of Solids and Fluids, Heat and Thermodynamics, Laws of Motion, Motion in two dimensions, Wave, Electrostatics, Current Electricity, Magnetic Effect of Current, Magnetism in Matter, Ray Optics and Optical Instruments, Gravitation, Oscillatory Motion, Electromagnetic Induction, Wave Optics and Modern Physics.

**Chemistry Syllabus:**

Atomic Structure, Chemical Bonding, Acid-Base Concepts, Colloids, Colligative Properties of Solution, Isomerism, IUPAC, Polymers, Redox Reactions, Electrochemistry, Catalysis,

Chemical Equilibrium and Kinetics, Periodic Table, Thermochemistry, General Organic Chemistry, carbohydrates, Solid State, Petroleum.

**Biology Syllabus (Zoology & Botany):**

**Zoology:** Origin of Life, Organic Evolution, Human Genetics and Eugenics, Applied Biology, Mechanism of Organic Evolution, Mammalian Anatomy, Animal Physiology.

**Botany:** Plant Cell, Protoplasm, Ecology, Fruits, Cell Differentiation Plant Tissue, Anatomy of Root, Ecosystem, Genetics, Seeds in Angiospermic Plants, Stem and Leaf, Soil, Photosynthesis.

**Paper 3 Syllabus: (Agricultural Physics and Agricultural Chemistry for AG I, Agricultural Engineering and Agricultural Statistics for AG II & Agronomy and Agricultural Botany for AG III)**

AG I Agricultural Physics and Agricultural Chemistry:

Agricultural Physics, Agricultural Chemistry, Inorganic Chemistry, Organic Chemistry.

AG II Agricultural Engineering and Agricultural Statistics:

Agricultural Engineering and Agricultural Statistics.

AG III Agronomy and Agricultural Botany:

Agronomy: Crops, Soils, Manures And Manuring, Irrigation & Drainage and Agricultural Botany.

**Paper 4 Syllabus: (Aptitude Test for Architecture)**

Part – A: Mathematics & Aesthetic Sensitivity

**Mathematics:** Algebra, Probability, Calculus, Vectors, Trigonometry, Co-ordinate Geometry, Dynamics, Statics.

**Aesthetic Sensitivity:** This test aimed to evaluate a candidate for aesthetic Perception, Creativity and Communication, Imagination, and Observation and Architectural awareness.

**Part- B: Drawing Aptitude**

This test aimed to evaluate a candidate for his understanding of Scale and Proportion, Sense of Perspective, colour and understanding of the effects of light on objects through shades and shadows

**Paper 5 Syllabus: (Aptitude Test for General Awareness (BHMCT/BFAD/BFA))**

Reasoning & Logical Deduction, Numerical Ability & Scientific Aptitude, General Knowledge, English Language.

**Paper 6 Syllabus: (Aptitude Test for Diploma Holders in Engineering)**

Engineering Mechanics, Basic Electrical Engineering, Basic Electronics Engineering, Engineering Graphics, Elements of computer science, elementary Biology, Basic Workshop Practice and Physics/Chemistry/Maths of Diploma standard.

**Paper 7 Syllabus: (Aptitude Test for Diploma Holders in Pharmacy)**

Pharmaceutics-I, Pharmaceutical Chemistry – I, Pharmaceutics – II, Pharmaceutical Chemistry – II, Pharmacognosy, Biochemistry and Clinical Pathology, Pharmacology and Toxicology, Pharmaceutical Jurisprudence, Human Anatomy and Physiology, Health Education & Community Pharmacy, Drug Store and Business Management, Hospital and Clinical Pharmacy

**Paper 8 Syllabus: (Aptitude Test for B.Sc Graduate in Engineering)**

Linear Algebra, Calculus, Differential Equations, Complex Variables, Probability and Statistics, Fourier Series, Transform Theory.

**Paper 9 Syllabus: (Aptitude Test for MBA)**

The test is aimed at evaluating the verbal ability, quantitative aptitude, logical & abstract reasoning and knowledge of current affairs. The following is a brief description of the contents of the test paper.

**Section A (English Language):** Grammar, Vocabulary, Antonyms, Uncommon Words, Sentence Completion, Synonyms, Relationship between Words & Phrases and Comprehension of Passages.

**Section B (Numerical Aptitude):** Numerical Calculation, Arithmetic, Simple Algebra, Geometry and Trigonometry, Interpretation of Graphs, Charts and Tables.

**Section C (Thinking and Decision Making):** Creative Thinking, Finding Pattern strands and Assessment of Figures & Diagrams, Unfamiliar Relationships, Verbal Reasoning.

**Section D (General Awareness):** Knowledge of Current Affairs and other issues related to trade, industry, economy, sports, culture and science.

**Paper 10 Syllabus: (Aptitude Test for MCA)**

Mathematics: Modern Algebra, Algebra, Co-Ordinate Geometry, Calculus, Probability, Trigonometry, Vectors, Dynamics, Statics.

Statistics: Mean, Median, Mode, Theory of probability, Dispersion and Standard Deviation.

Logical Ability: Questions to test the analytical and reasoning capability of candidates.

**Paper 11 Syllabus: (Aptitude Test for 2nd year MCA (Lateral Entry))**

Mathematical Structures: Modern Algebra and Matrices, Set Theory, Number Theory and Methods of Proof, Combinatorics and Probability.

Computing Concepts: Principles of Computer Science, Proposition logic and Boolean Algebra, Numerical Techniques, Theory of Computation.