

# TS ECET 2025 Syllabus

## Mathematics:

- Matrices
- Trigonometry
- Analytical Geometry
- Differentiation and its Applications
- Integration and its Applications
- Differential Equations
- Laplace Transforms and Fourier series
- Probability and Statistics

## Physics:

- Units and dimensions
- Elements of vectors
- Kinematics and Friction
- Work, Power and Energy
- Simple harmonic motion and Sound
- Heat and Thermodynamics
- Modern physics

**Chemistry:**

- Fundamentals of chemistry
- Solutions
- Acids and Bases
- Principles of Metallurgy
- Electrochemistry
- Corrosion
- Water Technology
- Polymers
- Fuels
- Environmental Chemistry

**Biotechnology:**

- Basic Industrial Biotechnology
- Bio-Physics
- Genetics and Cell Biology
- Microbiology
- Bioreactor Engineering
- Molecular Biology
- Plant Biotechnology
- Animal Bio- Technology
- Bioinformatics
- Enzyme Engineering

**Chemical Engineering:**

- Mathematics
- Physics
- Chemistry
- Material technology
- Mass and Energy Balance:
- Organic Chemical Technology
- Inorganic Chemical Technology
- Fluid mechanics
- Thermodynamics and Reaction Engineering
- Heat transfer
- Mechanical unit operations
- Mass Transfer
- Instrumentation & process control
- Environmental Studies and Pollution Control Engineering
- Energy Technology

**Computer Science & Engineering:**

- Mathematics
- Physics
- Chemistry
- Digital Electronics
- Microprocessors
- Computer Organization
- C and Data Structures
- Computer Networks:

- Operating Systems
- RDBMS
- Object Oriented Programming Through C++
- Java Programming:
- Internet Programming

#### **Electrical & Electronics Engineering:**

- Mathematics
- Physics
- Chemistry
- Basic Electrical Engineering
- C. Machines, Batteries & Measuring Instruments
- C. Circuits & Transformers
- C. Machines
- Power System Generation & Protection
- Transmission & Distribution
- Electric Traction
- Electrical Installation & Estimation
- Basic Electronics & Digital Electronics
- Power Electronics and Microcontroller

#### **Mechanical Engineering:**

- Physics
- Chemistry
- Mathematics
- Workshop Technology
- Welding, Forging, Foundry and Conventions in drawing

- Engineering Materials, and Engineering Mechanics
- Mechanics of Solids
- Design of Machine Elements
- Thermodynamics
- Fluid Mechanics and Hydraulic Machines
- Energy sources and Power Plant Engineering
- Refrigeration – Air Conditioning and Automobile Engineering
- Industrial Management and Engineering

**B.Sc (Mathematics):**

- Mathematics
- Analytical Ability
- Communicative English

**Pharmacy:**

- Pharmaceutics
- Pharmaceutical Chemistry
- Pharmacognosy
- Pharmacology & Toxicology

**Civil Engineering:**

- Mathematics
- Physics
- Chemistry
- Strength of Materials
- Theory of Structures
- Reinforced Concrete Structures
- Surveying

- Hydraulics
- Irrigation Engineering
- Transportation Engineering
- Environmental Engineering
- Design of Steel Structures

**Electronics & Communication Engineering:**

- Physics
- Mathematics
- Chemistry
- Electronic Devices and Circuits
- Circuit Theory
- Electronic Measuring Instruments
- Industrial Electronics
- Communication Systems
- Advanced Communication System
- Digital Electronics
- Microprocessors & Microcontrollers
- Advanced Microcontrollers & DSP
- Consumer Electronics
- Data Communications & Computer Networks
- Digital Circuit Design through Verilog HDL