Syllabus

Diploma in Chemical Engineering

Sem – I

1. Applied Mathematics – I
2. English Communication
3. Basic Electrical & Electronics Engineering
4. Inorganic Chemistry
5. Applied Chemistry – I

Sem – II

1. Communication Skills
2. Engineering Mechanics
3. Engineering Drawing
4. Fundamentals of Chemical Engineering
5. Engineering Mathematics

Sem – III

1. Applied Mathematics – II
2. Industrial Chemistry
3. Mechanical Operation
4. Chemical Process Technology – I
5. Stoichiometry

Sem – IV

1. Physical Chemistry & Materials of Construction
2. Electrical & Electronics
3. Plant Utility
4. Fluid Flow Operation
5. Chemical Process Technology – II

Sem – V

1. Plant Safety & Maintenance
2. Energy Management
3. Heat Transfer Operation
4. Chemical Process Instrumentation & Control
5. Chemical Reaction Engineering

Sem – VI

1. Environmental Technology
2. Chemical Engineering Drawing
3. Mass Transfer Operation
4. Petro Chemical Engineering
5. Alcohol Technology

Bachelor Program in Chemical Engineering

Sem – I

1. Calculus
2. Physics
3. Mechanics of Solids
4. Engineering Graphics
5. English
6. Linear Algebra

Sem – II

1. Chemistry
2. Environment & Energy Studies
3. Art of Programming
4. Elements of Electrical Engineering
5. Communication Skills
6. Electronic Devices & Circuit

Sem – III

1. Chemical Engineering Thermodynamics
2. Chemical Engineering Calculation
3. Process Information & Analysis
4. Mathematics – III
5. Basic Electronic Engineering
6. Production Engineering

Sem – IV

1. Fluid Mechanics
2. Mechanical Operation
3. Organic Chemical Technology
4. Chemical Engineering Thermodynamics – II
5. Strength of Materials
6. Basic Electronic Engineering

Sem – V

1. Heat Transfer
2. Mass Transfer – I
3. Process Equipment Design (Mechanical) – I
4. Inorganic Chemical Technology
5. Numerical Analysis & Computer Application
6. Chemical Process Instrumentation & Control

Sem – VI

1. Mass Transfer – II
2. Process Equipment Design – II
3. Process Dynamics & Control
4. Chemical Reaction Engineering
5. Engineering Materials
6. Petro Chemical Engineering

Sem – VII

1. Project Engineering, Economics & Management
2. Process Equipment Design – III
3. Fuel Combustion Energy Technology
4. Transport Phenomena
5. Petroleum Refinery Engineering
6. Polymer Technology – I

Sem – VIII

1. Process Utilities & Safety
2. Optimization Techniques in Chemical Engineering
3. Environmental Pollution Control Engineering
4. Process Modeling & Simulation
5. Polymer Technology – II
6. Polymer Technology – III

Master Program in Chemical Engineering

Sem – I

1. Mathematical Methods in Chemical
2. Advanced Fluid Mechanics Engineering
3. Advanced Mass Transfer
4. Chemical Engineering Thermodynamics
5. Advanced Transport Phenomena
6. Advanced Heat Transfer
7. Distillation

Sem – II

1. Chemical Reaction Engineering
2. Advanced Process Dynamics & Control
3. Process Modeling & Simulation
4. Research Methodology
5. Project Management
6. Optimization Techniques
7. Safety & Hazards

Sem – III

1. Analytical Techniques
2. Composite Materials
3. Nuclear Fuel Cycles
4. Bio-fuels
5. Biomedical Engineering & Engineering Health Care
6. Health Physics
7. Power Plant Design

Sem – IV

1. Renewable Energy Engineering
2. Biochemical Process Design
3. Enzyme Engineering & Technology
4. Bioreactor Analysis
5. Food Technology
6. Chemical Plant Safety & Occupational Hazards
7. Specialization