

**IIMSR****Imperial Institute of Management Science & Research**

A Unit Of Wales Educational Trust

## Diploma in Chemical Engineering

Duration: 03 Year

10,000/Sem

Diploma in Chemical Engineering is an undergraduate program pursued after 10th grade. The duration of the course is 3 years which can differ based on college norms. The eligibility criteria for the course are qualifying 10th examination with minimum aggregate marks of 45% in Science and Mathematics from a recognized board.

Diploma in Chemical Engineering is a comprehensive study of bringing together physical science i.e. Physics and Chemistry and life science viz microbiology, biochemistry, and biology applying together mathematics and economics in order to convert raw materials into newer products. The program provides the students to get an insight into the workings of the industry. In addition to imparting knowledge of chemical science, the course also exposes to students its application in human science areas as well.

## Subjects Of Study

The syllabus comprises of classroom study, Lab practice and project work. The emphasis of the program will be on covering aspects of subjects including Plant safety, Pollution Control, Utilities, Waste Disposal and Maintenance of plants. The course strengthens candidates with innovative and supervisory skills. The syllabus followed by universities and colleges are as follows:

Semester I
Basic Mathematics
Chemistry I
Engineering Drawing I
Physics I
Applied Mathematics
Development of life skill
Workshop

Semester II
Basics of Computer Systems
Chemistry II
Engineering Drawing II
Physics II
Communication Skill
Engineering Mathematics
Organic and Physical Chemistry

Semester III
Strength of Materials
Electrical Technology
Polymer Chemistry
Petroleum Refining and Petrochemicals
Technology of Inorganic Chemicals
Mechanical operations
Technology of Organic Chemicals & Products

Semester IV
Technology of Plastics
Principles of Stoichiometry
Applied Mathematics
Basic Electronics
Fluid Flow and Heat Transfer
Material of Construction

Semester V
Plant Training

Semester VI
Chemical Engineering Thermodynamics
Chemical Reaction Engineering
Elective I
Stress Management
Chemical Engineering Drawing
Plant Utilities
Industrial Management

Semester VII
Introduction to Energy System Engineering
Process Instrumentation & Control
Elective II
CADD & Estimation
Mass Transfer
Project

Semester VIII
Field Training

## Diploma in Chemical Engineering: Career Prospects

On the successful completion of the course, candidates have the opportunity to start working for chemical and process industries even before pursuing their final year studies. The candidates are employed in sectors of manufacturing dealing in production of basic iron & steel products, inorganic industry chemical sectors, mining as well as textiles and Adhesives industry. Candidates can become Process Engineer, Chemical Engineer, Market Analyst, Field Operator, Associate Scientist, Technical Service Representative, Plant Operator, Maintenance Technician, Supervisor and other such.

Job Profile	Job Description
Plant Operator	Controlling equipment generating power, reading through charts, meters, checking voltage and flow of electricity.
Maintenance Technician	Installation, maintain and repair equipment, carry on troubleshoot; monitor the safety of equipment for use.
Market Analyst	Analyzing market trends, collect data, evaluate the statistics and suggest new measures to upgrade the business.
Associate Scientist	Works at the lab in offices or schools. Assist senior scientist in conducting research and projects.
Process Engineer	Designing and developing new process plants and equipment, modify the existing ones and install newer ones.

Field Operator	Setting up systems, operation and troubleshoot machines/equipment. Analyze the blueprints/designs, suggest measures and work in liaison with the team and management
Technical Service Representative	Attend to customer grievances, resolve and help in troubleshooting.
Supervisor	Monitor the activities of subordinates and field engineers, suggest measures and assist staff.

**\*\* The course syllabus for the program will vary for different universities and colleges.**

**For More Information:**

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**[www.iimsr.net.in](http://www.iimsr.net.in)**