



An ISO 9001:2015
Certified Organisation

Suvidya Institute of Technology Pvt. Ltd.

Training Programme Schedule and Syllabus

Engineering Design & Drafting

Batch No. 10027



SCHEDULE :

Eligibility : ITI in any Stream and HSC-Science/ Commerce/ Arts (50% above)

Synopsis:

Module 1 : Make and Modify Mechanical Engineering Drawing using AutoCAD System.

- a. Understanding Concept of Engineering Drawing
- b. Understanding Standard Drawing sheets used in Industry.
- c. Understanding concept of First and Third Angle Projection
- d. Understanding Engineering and Drafting Standards used in Industry.
- e. Understanding Drawing Sections and detailed Views
- f. Understanding Dimensioning of Drawings
- g. Understanding using AutoCAD Software
- h. Understanding converting drawing in to AutoCAD

Module 2 : Health Safety and Environment in Working

- a. Understanding concept of Health Safety and Environment at workplace
- b. Understand hazards associated, revolving, and moving parts, hot metal particles, sharp cutting tools, lifting and holding work holding devices, burrs and sharp edges on the component.
- c. Understanding identifying job site hazards like sharp edged heavy tools, gas cylinders, welding radiations, chemicals, fumes, obstructions in corridors, naked wires / cables etc
- d. Understanding importance of using protective clothing like leather or asbestos gloves, flame proof aprons, flame proof overalls buttoned to neck, cuffless (without folds), trousers, reinforced footwear, helmets/hard hats, cap and shoulder covers, ear defenders/plugs, safety boots, knee pads, particle masks, glasses/goggles/visors, hand shields, machine guards, residual current devices, shields, dust sheets, respirator etc.

Module 3 : Interfaces and working with other engineering departments

- a. Understanding ability to receive and pass information from and to authorized persons and seeking clarification from authorized persons where required.
- b. Understanding ability to communicate by avoiding use of abusive language, display respect to others.
- c. Understanding respecting others time by completing given task in time, avoiding gossip and avoid conflict.

Syllabus:

- Training on core engineering departments like : Piping, Process, Electrical, Instrumentation, Structural and HVAC
- English Speaking
- Personality Development and communication skill
- Computer aided design – AutoCAD

Piping / Process Drafting

- Deliverables of Piping Department and their use.
- Understand selection of proper fittings, Requirement of fabrication
- Requirement of Code and Standards in Piping

- Preparation of Plot Plan, Preparation of Equipment Layouts
- Preparation of Piping Layouts, Preparation of Pipe Support Layouts Understand
- Preparation of Nozzle Orientation Preparation of Construction Isometrics Understand
- Preparation of As Built Drawings, Preparation of MTO Understand
- Understand writing specifications while ordering.
- Understand fabrication and installation guidelines

Electrical / Instrumentation Drafting

- Understanding concept of Electrical Systems Design.
- Understanding preparation of Single Line Diagram
- Understanding Preparation of Bill of Material
- Understanding concept of Instruments.
- Understanding preparation of Hook Up Diagram
- Understanding preparation of Bill of Material
- Overview of International Codes and Standards

Civil/ Structural Drafting

- Understand Selection of Steel Members, requirement of fabrication
- Requirement of Code and Standards, Preparation / Reading of Plot Plan
- Preparation of Pipe Supporting and Equipment Supporting Structures
- Preparation of Foundation Drawings, Preparation of Pipe Support Drawings
- Preparation of Road, Trenches, Dyke Wall drawings, Preparation of As Built Drawings
- Preparation of MTO, understand writing specification while ordering.
- Understand fabrication and installation guidelines
- Understand the basic design of structures and structural elements.

HVAC / Mech. Static Drafting

- Deliverables of HVAC Department and their use.
- Understand requirement of fabrication
- Understand requirement of Code and Standards
- Preparation of Duct Layouts, Preparation of Equipment Layouts
- Preparation of Chilled Water / Cooling Water Piping Layouts
- Preparation of Pipe Support Layouts, Preparation of Construction Isometrics
- Preparation of As Built Drawings, Preparation of MTO
- Writing specification while ordering, understanding fabrication and installation guidelines.

Key Benefits of Training Program:

- ❖ Exposure to working culture of Engineering, Procurement and Construction Companies.
- ❖ Thorough Knowledge provided to understand the project activities.
- ❖ Introduction of interactive methods within the departments.
- ❖ Understanding of Deliverables to function smoothly and quality output.
- ❖ Training of relevant soft-skills helps to improve attitude and efficiency.
- ❖ Acquire the knowledge of Advance technologies used currently in the Industry.
- ❖ Enrich the knowledge of International codes and standards for perfection in design.
- ❖ Training in Personal Development to enhance communication skills (wherever applicable).

After successful completion of Training Program you will have opportunity to work in EPC sector as a Draftsman.

Together We Will Bring New Dimensions To Engineering Industry

Suvidya Institute of Technology Pvt. Ltd.

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