



SYLLABUS FOR CONVENTIONAL MACHINING WITH CNC PROGRAMING

MODULE-1

❖ **Introduction.**

Introduction to machining process.

Cutting parameters

Tools

Ideas on single point cutting tool, multi point cutting tool.

Tool nomenclature

❖ **Lathe M/C**

Classification, construction

Definition, Different components & operations

Mechanism, Attachments

Applications

❖ **Milling M/C**

Classification, construction

Different components/parts, operations

Mechanism, attachment, indexing procedure

Applications

❖ **Drilling M/C**

Classification, construction

Different components/parts, operations

Mechanism

Applications

MODULE-2

❖ Introduction to Computer Numerical Control (CNC)

- Numerical control
- Functions of a machine tool
- Concept of numerical control
- Historical Development
- Definition
- Advantages of CNC machine tools
- Evolution of CNC
- Advantages of CNC
- Limitations of CNC
- Features of CNC
- The Machine Control Unit (MCU) for CNC
- Classification of CNC Machine Tools
- CNC MACHINING CENTERS
 - Classification
 - Features Of CNC Machining Centers

MODULE-3

❖ Auto CAD basic (ACAD-01)

- Sketching Points line, Circles & Arcs.
- Simple exercises based on above.
- Isometric Views.
- Splines & poly lines
- Identifying the points in given drawing.

MODULE-4

❖ CNC Milling- Basic

- Fundamentals of CNC milling
- Familiarization of control panel
- Fundamentals of CNC programming
- Part programming techniques.
- Machining practice on CNC Milling
- Practice session at Industry

MODULE-5

❖ CNC Turning.

- Work piece setting methods
- Tool setting methods
- Practice on CNC Turning.
- Exercises on machine & Practice session.