



MSME- TECHNOLOGY CENTRE, GUWAHATI
TOOL ROOM & TRAINING CENTRE
Ministry of Micro, Small & Medium Enterprises, Govt. of India



COURSE NAME: e – Learning on Application of CNC Turning (Programming)
Course Duration: 2weeks (2hrs/day)

Sl no.	TOPICS
1	HEALTH AND SAFETY ON WORKPLACE <ul style="list-style-type: none">• INTRODUCTION• SAFETY AND ITS TYPES• USE OF PPE• CAUSES OF ACCIDENT & SAFETY PRECAUTIONS• FIRE SAFETY
2	MEASUREMENT AND MEASURING INSTRUMENTS <ul style="list-style-type: none">• INTRODUCTION• TYPES OF MEASURING INSTRUMENTS• DIFFERENT PARTS OF MEASURING INSTRUMENTS
3	THE CONVENTIONAL LATHE <ul style="list-style-type: none">• INTRODUCTION TO LATHE• TYPES OF LATHE• PARTS OF LATHE MACHINE• LATHE MACHINE SPECIFICATION• LATHE MACHINE OPERATIONS
4	CNC LATHE <ul style="list-style-type: none">• INTRODUCTION TO CNC• HISTORY OF CNC• CNC LATHE AND ITS PARTS.• AXIS DESIGNATION• CNC MACHINE SPECIFICATION

5	<p>CO-ORDINATE SYSTEM</p> <ul style="list-style-type: none"> • WHAT IS COORDINATE GEOMETRY. • TYPES OF COORDINATE SYSTEM • EXERCISE ON COORDINATE SYSTEM
6	<p>TURNING INSERTS</p> <ul style="list-style-type: none"> • TYPES OF TURNING TOOLS • TURNING INSERT NOMENCLATURE
7	<p>PROGRAMMING BASICS</p> <ul style="list-style-type: none"> • PROGRAMMING NOMENCLATURE • BASIC CODES (PREPATORY FUNCTIONS & MISCELENEOUS FUNCTION). • PROGRAMMING STRUCTURE.
8	<p>CNC CYCLE PROGRAM</p> <ul style="list-style-type: none"> • ROUGH TURNING CYCLE (SIMPLE TURNING, STEP TURNING, TAPER TURNING, RADIUS TURNING etc. • FINISHING TURNING CYCLE • FACING CYCLE • DRILLING CYCLE • BORING CYCLE • GROOVING CYCLE • THREADING CYCLE
9	<p>SIMULATION</p> <ul style="list-style-type: none"> • INTROCUCTION TO THE SIMULATION SOFTWARE • USER INTERFERENCE OF THE SIMULATION SOFTWARE • CNC CYCLE PROGRAMMING USING SIMULATION SOFTWARE • ERROR DETECTION