

TSTC FAST TracSM CNC Operator Accelerated Training

MODULE 1: Basic Shop Level I (160 hours)

Safety for Machine Shop

Reading Blueprints

Semi-Precision and Precision Measurement

Shop Math I

Speeds and Feeds

Materials

Learning Objectives:

National Institute Metalworking Skills (NIMS) Level 1 - Measurement, Material, and Safety

MODULE 2: Basic Shop Level II (160 hours)

Benchwork and Layout

Machine Motion

Coordinate System

Cutter Compensation and Tooling

Manual Machine Overview

Learning Objectives:

National Institute Metalworking Skills (NIMS) Level 1 - Job Planning, Bench work, and Layout

MODULE 3: Operations Level III (160 hours)

CNC 3-Axis Mill and CNC Lathe

Control Panel

Machine Startup

Loading Tools

Setting Work Coordinates

Tool Length Offsets

Running Program

Powering Down

Learning Objectives:

National Institute Metalworking Skills (NIMS) CNC Operations Turning Level 1

National Institute Metalworking Skills (NIMS) CNC Operations Milling Level 1

MODULE 4: Lathe and Mill Programming Level IV (160 hrs)

Program Structure

Programming Methods

Tool Motion and Cutter Compensation

Circular Interpolation

Fixed Cycles

Haas Intuitive Programming

Introduction to CAD/CAM systems

Learning Objectives:

National Institute Metalworking Skills (NIMS) CNC Milling Programming Level 1

National Institute Metalworking Skills (NIMS) CNC Turning Programming Level 1