

# NORTH CAROLINA CAREER AND TECHNICAL EDUCATION STANDARDS

## Trade, Technology, Engineering, and Industrial Education

Grade: Grade 9 - 12

Course: Metals Manufacturing Technology I **Updated**

**NCCTE.2020.IM41** - Metals Manufacturing Technology I

**NCCTE.2020.IM41.01.00** - Understand Industrial Safety and Environmental Protection.

**NCCTE.2020.IM41.01.01** - Understand personal protective equipment.

**NCCTE.2020.IM41.01.02** - Understand safety data sheet knowledge.

**NCCTE.2020.IM41.01.03** - Understand basic shop safety.

**NCCTE.2020.IM41.01.04** - Understand machine safety.

**NCCTE.2020.IM41.02.00** - Apply General Maintenance.

**NCCTE.2020.IM41.02.01** - Apply hand tool safety and maintenance.

**NCCTE.2020.IM41.02.02** - Understand finding maintenance procedures.

**NCCTE.2020.IM41.02.03** - Apply machine maintenance.

**NCCTE.2020.IM41.02.04** - Apply tooling maintenance.

**NCCTE.2020.IM41.03.00** - Apply Quality Control and Inspection.

**NCCTE.2020.IM41.03.01** - Understand introduction to the Machinery Handbook.

**NCCTE.2020.IM41.03.02** - Understand inspection plan and sampling.

**NCCTE.2020.IM41.03.03** - Apply measuring techniques and tools.

**NCCTE.2020.IM41.03.04** - Apply gage blocks.

**NCCTE.2020.IM41.03.05** - Understand surface finish.

**NCCTE.2020.IM41.03.06** - Understand statistical process control.

**NCCTE.2020.IM41.04.00** - Apply Process Adjustment and Improvement.

**NCCTE.2020.IM41.04.01** - Understand rationale for process improvement.

**NCCTE.2020.IM41.04.02** - Understand fit and allowances.

**NCCTE.2020.IM41.04.03** - Apply tapping and threading process adjustments.

**NCCTE.2020.IM41.04.04** - Apply grinding process adjustments.

**NCCTE.2020.IM41.04.05** - Apply milling process adjustments.

**NCCTE.2020.IM41.04.06** - Apply drilling process adjustments.

**NCCTE.2020.IM41.05.00** - Understand Metals Classification, Properties, and Numbering Systems.

**NCCTE.2020.IM41.05.01** - Understand metal classifications.

**NCCTE.2020.IM41.05.02** - Understand metal properties.

**NCCTE.2020.IM41.05.03** - Understand UNS and AISI/SAE numbering systems.

**NCCTE.2020.IM41.05.04** - Understand hardness testing of metals and alloys.

