### MTT — Machine Tool Technology

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### Prerequisites and Corequisites

- **MTT 101 Introduction to Machine Tool**
  - Prerequisites: None
  - Corequisites: None
  - This course covers the basics in measuring tools, layout tools, bench tools and basic operations of lathes, mills, and drill presses.

- **MTT 105 Machine Tool Math Applications**
  - Prerequisites: MAT 170
  - Corequisites: MTT 112, MTT 130, MTT 141
  - This course is a study of shop math relevant to the machine tool trade.

- **MTT 106 Machine Tool Computer App**
  - Prerequisites: None
  - Corequisites: None
  - This course is a study of basic computer applications that are used in machining industries. Topics will include word processing, ASCII text editing, spreadsheets, locating information on the internet and serial communical concepts.

- **MTT 111 Machine Tool Theory & Prac I**
  - Prerequisites: MTT 101 and MTT 111
  - Corequisites: MTT 105, MTT 130, MTT 141
  - This course is an introduction to the basic operation of machine shop equipment.

- **MTT 112 Machine Tool Theory & Prac II**
  - Prerequisites: MTT 101 and MTT 111
  - Corequisites: MTT 105, MTT 130, MTT 141
  - This course is a combination of the basic theory and operation of machine shop equipment.

- **MTT 113 Machine Tool Theory & Prac III**
  - Prerequisites: MTT 101 and MTT 112
  - Corequisites: MTT 255
  - This advanced course is a combination of theory and practice to produce complex metal parts. This course will include advanced machining and grinding procedures required to complete all machining applications.

- **MTT 120 Machine Tool Print Reading**
  - Prerequisites: MTT 120
  - Corequisites: MTT 105, MTT 112, MTT 141
  - This course is designed to develop the basic skills and terminology required for visualization and interpretation of common prints used in the machine tool trades.

- **MTT 130 Fund of Geometric Dim & Tole**
  - Prerequisites: MTT 120
  - Corequisites: MTT 105, MTT 112, MTT 141
  - This course covers the basic uses and interpretation of geometric dimensions and tolerances as specified for machine trade prints.

- **MTT 141 Metals & Heat Treatment**
  - Prerequisites: MTT 101
  - Corequisites: MTT 105, MTT 112, MTT 130
  - This course is a study of the properties, characteristics, and heat treatment procedures of metals.

- **MTT 171 Industrial Quality Control**
  - Prerequisites: MTT 112
  - Corequisites: MTT 241, MTT 249, MTT 250
  - This course covers the methods and procedures of quality control.

- **MTT 241 Jigs and Fixtures I**
  - Prerequisites: MTT 101
  - Corequisites: MTT 171, MTT 249, MTT 250
  - This course includes the theory necessary to design working prints of simple jigs and fixtures.

- **MTT 249 Introduction to CAM**
  - Prerequisites: MTT 112 and MTT 106
  - Corequisites: MTT 171, MTT 241, MTT 250
  - This course covers the basic commands necessary to create a simple part program for CNC machines using a graphics programming software.

- **MTT 250 Principles of CNC**
  - Prerequisites: MTT 112
  - Corequisites: MTT 171, MTT 241, MTT 249
  - This course is an introduction to the coding used in CNC programming.

- **MTT 251 CNC Operations**
  - Prerequisites: MTT 250
  - Corequisites: EGR 275, MTT 253, MTT 252, WLD 116
  - This course is a study of CNC machine controls, setting tools, and machine limits, and capabilities.

- **MTT 252 CNC Setup and Operations**
  - Prerequisites: MTT 250
  - Corequisites: EGR 275, MTT 251, MTT 253, WLD 116
  - This course covers CNC setup and operations.

- **MTT 253 CNC Programming & Oper**
  - Prerequisites: MTT 250
  - Corequisites: EGR 275, MTT 251, MTT 252, WLD 116
  - This course is a study of the planning, programming, selecting tooling, determining speeds and feeds, setting up, operating, and testing of CNC programs on CNC machines.
MTT 254  CNC Programming I  1 - 6 - 3
Prerequisites: EGR 275
Corequisites: MTT 113, MTT 255
This course is a study of CNC programming, including
machine language and computer assisted programming.

MTT 255  CNC Programming II  2 - 3 - 3
Corequisites: MTT 254, MTT 113
This course includes CNC programming with simulated
production conditions.