

MACHINE TOOL TECHNOLOGY

MTT — Machine Tool Technology

MTT 101 Introduction to Machine Tool 1 - 3 - 2

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 3 - 0 - 3

Corequisites: MTT 130, MTT 141

This course is a study of shop math relevant to the machine tool trade.

MTT 106 Machine Tool Computer App 3 - 0 - 3

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 communicable concepts.

MTT 111 Machine Tool Theory & Prac I 1 - 12 - 5

This course is an introduction to the basic operation of machine shop equipment.

MTT 112 Machine Tool Theory & Prac II 1 - 12 - 5

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 1 - 12 - 5

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 3 - 0 - 3

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 2 - 0 - 2

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 3 - 0 - 3

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 241 Jigs and Fixtures I 1 - 3 - 2

Prerequisites: MTT 101

Corequisites: CNC 206, MTT 249, MTT 250

This course includes the theory necessary to design working prints of simple jigs and fixtures.

MTT 245 Rapid Prototype Setup & Op 1 - 6 - 3

This course is an introduction to the set-up, operation, prototyping of parts, maintenance, and safety of rapid prototyping equipment.

MTT 249 Introduction to CAM 2 - 3 - 3

Prerequisites: MTT 112 and MTT 106

Corequisites: CNC 206, 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 2 - 3 - 3

Prerequisites: MTT 112

Corequisites: CNC 206, MTT 241, MTT 249

This course is an introduction to the coding used in CNC programming.

MTT 251 CNC Operations 2 - 3 - 3

Prerequisites: MTT 250 and MAT 170

Corequisites: MTT 245, 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 1 - 9 - 4

Prerequisites: MTT 250

Corequisites: MTT 245, MTT 251, MTT 253, WLD 116

This course covers CNC setup and operations.

MTT 253 CNC Programming & Oper 1 - 6 - 3

Prerequisites: MTT 250

Corequisites: MTT 245, 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:** *MTT 245***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.