

# Mastercam - Basic Lathe

## Course Description

This course will focus on delivering you a foundation in the Mastercam Lathe product to provide all the right tools for continued learning and success. You will learn the critical steps needed to toolpath, verify, and produce code from a digital file to take to the shop floor to produce parts on your machines.



The class will cover programming for a single turret style lathe that utilizes the X and Z axes with a tailstock & stock flip on multiple parts. Users will learn how to manipulate different types of geometry and place them in the proper orientation to toolpath quickly and accurately.



## Method of Instruction

This course is a classroom setting experience with personal handout instructions to be completed by the student.













After completion of the class the students can guide themselves back through each module and refresh their skills by completing the part at their own pace.

## Objectives

After completing this course, you will be able to:

- Explain and discuss the workflow for creating basic lathe toolpaths
- Practice the workflow of taking a model and creating NC code
- Demonstrate proficiency in the Mastercam Lathe product
- Articulate the difference between roughing and finishing toolpaths
- Understand what type of CAD files are available and working through a flow to select a toolpath
- Explain and demonstrate new techniques for toolpaths in Mastercam Lathe

## Course Topics

-  Introduction of the Software and the Lathe Interface
-  Importing Digital Cad Data
-  Alignment of part
-  Explanation of Stock Setup
-  Facing toolpath
-  Dynamic toolpath
-  Rough and finish toolpath
-  Drilling toolpath
-  Grooving toolpath
-  Internal and External threading toolpath
-  Plunge turn / Contour Rough / Prime Turn Toolpath
-  Cutoff Toolpath

## **Course Requirements**

- Mastercam Lathe
- Internet Connection for Mastercam University online courses and classes

## **Grading**

Grades will be available from the Instructor Dashboard for assessment questions. Challenge assignments will not be graded in the system and must be reviewed manually or peer reviewed.

## **Course Completion Time**

**Course is a combined minimum of 16 hours in person and/or online meetings.**

Each online course lesson contains video guides, step-by-step documents, challenges, and assessments. Completion time will vary from student to student.

## **Next Steps**

After completion of this course students are encouraged to continue their growth and exploration of the software through the Mastercam Intermediate Lathe with C & Y-axis Milling or Mastercam Advanced Mill-Turn with Machine simulation courses.

