# Lathe Main Spindle - XZCY

## **Course Description**

This course will focus on utilizing C & Y axis milling in the Mastercam Lathe/Mill products to increase efficiency and productivity with live tooling CNC lathes. Users will learn the processes needed to supplement their lathe foundation.

The class will cover programming for a single turret style lathe that utilizes the X, Z, C, & Y axes with a with both single and dual spindle setups. Users will also learn how to focus on live milling processes to manipulate different types of geometry and output code to the CNC lathe 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 C & Y-axis live milling toolpaths
- Create toolpaths for both left and right spindles for CNC Lathe
- Transfer parts from the left Spindle to the right Spindle using multiple transfer routines
- Demonstrate proficiency in utilizing live milling toolpaths in the Mastercam Lathe product

## **Course Topics**

- Introduction to C & Y-axis live tooling lathes
- 💹 Importing Digital Cad Data
- Face Contour toolpath
- Cross Contour toolpath
- C-axis Contour toolpath
- Face Drill toolpath
- Cross Drill toolpath
- 📶 🛛 Stock Flip
- 🗱 🛛 Axis Substitution
- Creating Milling Planes for optimizing toolpaths (*Mill Product required*)
- Part transfer routines (dual spindle lathe required)



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### **Course Requirements**

- Completion of Basic Lathe and/or optional Mastercam Skills Assessment
- Mastercam Lathe
- Mastercam Mill (optional)
- 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 Advanced Mill-Turn with Machine simulation or Mastercam Custom Classes.

#### Make sure to sign up for our Home Learning Edition on our website to get started on using Mastercam today! Home Learning Edition Sign-up

Or check out our website directly at: <u>www.fastechinc.net</u> for additional learning content and information on everything Mastercam related.