

MILL-TURN IN LATHE COURSE SYLLABUS

COURSE DESCRIPTION

Manufacturing today is rapidly evolving, and staying on the cutting edge is critical for professional development. Mastercam 2019 puts cutting-edge CAM tools just a mouse click away. With the right training, these tools will assist you in manufacturing the future!

This course reviews how to program simple Mill-Turn machines using Mastercam Lathe with a “.machine file”. You will learn everything from part setup to toolpath creation to simulation.

METHOD OF INSTRUCTION

This course was designed to be self-paced. Each lesson contains a set of learning objectives that you will be walked through during the videos to better understand these goals.

OBJECTIVES

Through completing this course, you will be able to:

- Gain a high level overview of Mill-Turn in Lathe.
- Learn the use of .machine” files.
- Understand the process of modifying machine group parameters to suit a part.
- Understand how the chuck and bar stock work together.
- Complete left spindle and right spindle parameters.
- Observe the Application Guide and its content.
- Understand the Tool Setup Manager and learn how to import a tooling library.
- Create PrimeTurning™ toolpaths.
- Post in the Sync Manager.
- Understand the relationship between Mastercam and “.iof” files.
- Launch Simulation to troubleshoot collisions.
- Review settings in Job Setup.
- Create a pickoff and cutoff operation.
- Check clearance between the tool and the machine.
- Understand the use of the Y and C axes in the toolpaths.
- Load tools on the turret.
- Navigate Code Expert and find different views with it.
- Understand the use of reference positions in Mastercam.
- Navigate Code Expert.

COURSE PREREQUISITES

Completion of Mastercam 2D Mill and Lathe courses (at a Reseller, school, or online) or a solid understanding of the topics covered in the 2D Mill and Lathe courses on Mastercam University.

COURSE TOPICS / COURSE COMPLETION TIME

Each lesson contains descriptions and objectives. Completion time will vary from student to student. The information provided below is the time required to watch all of the content.

1. Introduction – 1 minute
2. Workflow Overview – 4 minutes
3. Job Setup and Configuration – 24 minutes
4. Toolpaths Left Spindle – 44 minutes
5. Part Handling Operations – 17 minutes
6. Toolpaths Right Spindle – 67 minutes
7. Sync Manager – 35 minutes
8. Posting Code – 5 minutes

COURSE REQUIREMENTS

- To view the training materials, you need a device with internet access.
- To complete the exercises, you need a PC with Mastercam Lathe or Demo/Home Learning Edition installed.
- To run the machine definitions in this course, you will need an evaluation version of Mastercam. Please contact your Reseller or training@mastercam.com if you need assistance.

NEXT STEPS

After completion of this course, students are encouraged to continue exploring Mill-Turn toolpath creation. You may proceed to advance 2D or 3D milling or other turning courses following completion of Mill-Turn in Lathe.

**For more information, visit
UNIVERSITY.MASTERCAM.COM**

CNC Software, Inc.
671 Old Post Road
Tolland, CT 06084



University.Mastercam.com

