

# CNC Turning Course 1 - Controller - Basic 2 Axis (X & Z) Turning

Dates: 23rd - 25th of May 2023

Location: IMR training facilities, Mullingar

Duration: 3 Day Course

Delivery: Face to Face Classroom and Workshop  
(Facilitator Led)

Contact: [marketing@imr.ie](mailto:marketing@imr.ie)

[Register Interest](#)



**IRISH  
MANUFACTURING  
RESEARCH**



**MILLS CNC**  
TRAINING ACADEMY

## Course Aim

This is a basic Fanuc turning course designed for people with some knowledge and experience of the machining process and CNC controls but who want to acquire the necessary skills to program 2-axis lathes.

The course is aimed at operators looking to acquire new and upgrade existing skills, and at adult learners with basic knowledge and experience of the machining process looking to make the step up to CNC Programming. Designed for operators in engineering already experienced using the machine but want that extra bit of knowledge to understand what the programs are doing and how to do simple editing and adjustments of offsets etc.

The course is suitable for customers with either Doosan 2-axis lathes or other manufacturers' Fanuc controlled machines with a similar configuration.

# Day 1 Module 1 Fanuc Turning ISO Code

1. Machine Layout, Work Datums,
2. Tool Offsets.
3. G71 Cycle External Machining
4. G70 Cycle
5. G72 & G73 Turning Cycles
6. G74 & G75 Grooving Cycles
7. G96 Constant Surface Speed On
8. G97 Constant Surface Speed Off & Direct Spindle Speed On.



## Day 2 Module 2 Fanuc Turning ISO Code

1. G74 & G83 Drilling Cycles.
2. G71 & G70 Cycle Internal Machining
3. G41 & G42 Cutter Compensation
4. G96 & G97 Constant Surface Speed Off & On
5. G74 & G83 Drilling Cycles
6. G41 & G42 Cutter Compensation
7. G76 Threading
8. Review of Examples done at Home/Work

# Day 3 Module 3 Fanuc Turning NC Guide Conversational

1. Fixed Forms, Creating, Editing & Deleting .
2. Tool Data Base, Creating and Setting.
3. Billet Size, Start Menu, Cycles & End Menus.
4. Pocketing & Facing Cycles
5. Hole Machining & Internal Roughing. Residual Cutting, Grooving Internal & External Copy, Threading External & Internal
6. Time Studies, Review of Examples done with a Back Up for Home & Work

## Learning Outcomes

At the end of the course the participants will have acquired basic knowledge for CNC programming and operation of CNC Precision lathes. They will have gained an understanding of ISO G codes and cycles relevant to CNC precision turning giving them the confidence to make understand CNC programs and make minor edits

## Participants Profile

This course is designed for operators currently operating or beginning to operate CNC lathes at an operator level i.e. part loading, basic tool changing, wear adjustments etc

## Certification / Awarding Body

CPD Engineers Ireland

*\*Limited to 8 participants*

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