



**-Draft-**

Industrie- und Handelskammer (IHK)

Chamber of Commerce and Industry (CCI)

# CCI Course Certificate

This is to certify that

Mr/Ms \_\_\_\_\_

born in \_\_\_\_\_ on

attended the

National CCI Certificate Course

## CNC Production Specialist (CCI)

from \_\_\_\_\_ to \_\_\_\_\_

and having passed the CCI written test at the end of the course, has been awarded this certificate.

Place: \_\_\_\_\_ Date: \_\_\_\_\_

Stamp and signature:

## Reverse of the CCI Certificate

### CCICourse Objectives

Basic Level CNC Technology (CCI) course participants learn the hands-on basics of CNC technology. With the help of practice-oriented exercises they are familiarized with the program and production sequence on NC lathes and NC milling machines. They can write simple programs which can then be used to program lathes and milling machines.

### Course content

- Basics of CNC
  - Introduction to working at a PC
  - Basics of CNC technology
  - Program structure
  - Program preparation
  - Geometry and program exercises for turning and milling
- CNC turning and milling technology I
  - Program preparation  
Preparing set-up sheets, and mounting and tooling plans, presetting tools, determining, changing and entering tool offsets
  - Programming  
Preparatory functions, additional and auxiliary functions, zero and reference points, working cycles, coordinate systems, polar coordinates, programming measuring loops, subroutines and macro technology
  - Machine preparation  
Start-up routines, program inputs, program transfer, setting up CNC lathes and milling machines, test runs, simulation, troubleshooting bugs in programs, accident prevention equipment for CNC systems
  - Production sequence on CNC lathes and milling machines  
Start-up routines, setting up the machine, data transfer with DNC, program patching, machining sequences, optimizing the processes, operating CNC lathe and milling machines (machining), quality assurance
  - Program management  
Data management, interfaces for data input and output, remote transmission and DNC systems