



AUTODESK/AUTOCAD TRAINING

Autodesk Cam

*Master Autodesk CAM to program CNC machines and optimize manufacturing workflows.
Generate precise toolpaths for efficient production.*

DURATION

Flexible

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

This intermediate-level Autodesk CAM course from Computer Pride is meticulously designed to equip aspiring and experienced manufacturing professionals with the essential skills to transform digital designs into physical products. You will delve into the powerful capabilities of Autodesk's integrated CAM solutions, learning how to generate efficient and precise toolpaths for various CNC machining operations. The curriculum covers everything from project setup and stock management to advanced milling and turning strategies, ensuring you gain a comprehensive understanding of the entire computer-aided manufacturing workflow. By mastering Autodesk CAM, participants will significantly enhance their ability to optimize manufacturing processes, reduce material waste, improve product quality, and accelerate time-to-market. This course emphasizes practical application, allowing you to develop a strong command over generating G-code, simulating machining operations, and post-processing for a diverse range of CNC machines. You will gain invaluable experience in selecting appropriate cutting tools, defining machining parameters, and ensuring the safety and efficiency of your production runs. Upon successful completion, you will be proficient in using Autodesk CAM tools to bridge the gap between design and production, positioning yourself as a crucial asset in modern manufacturing environments. This expertise is highly sought after across various industries, including automotive, aerospace, consumer goods, and mold making, making this certification a significant step forward in your professional development.

Level	Intermediate
Vendor	Autodesk/AutoCAD

COURSE CURRICULUM

01 Module 1: Introduction to CAM and Autodesk CAM Environment

- Overview of CAD/CAM/CNC Workflow
- Understanding the Autodesk CAM User Interface and Navigation
- Project Setup: Part Files, Stock Definition, and Work Coordinate Systems (WCS)
- Material Libraries and Tool Libraries Management
- Introduction to Machining Operations and Types

02 Module 2: 2D Machining Strategies for Milling

- 2D Adaptive Clearing for Efficient Material Removal
- 2D Pocketing and Slotting Operations
- 2D Contouring and Profile Cutting
- Drilling, Tapping, and Boring Operations
- Engraving and Chamfering Techniques
- Tool Selection, Feeds, and Speeds Calculation for 2D Operations

03 Module 3: 3D Machining Strategies for Complex Parts

- 3D Adaptive Clearing and High-Efficiency Roughing
- Surface Finishing Strategies: Scallop, Parallel, Spiral, Radial
- Rest Machining and Stock Awareness
- Projecting and Morphing Toolpaths
- Advanced Toolpath Control and Linking Parameters
- Introduction to Multi-Axis Positioning (3+2 axis)

04 Module 4: Turning Operations (Lathe Machining)

- Introduction to Turning Workflow and Lathe Setup
- Facing and Roughing Turning Operations

- Profile Finishing and Grooving
- Parting Off and Drilling on the Lathe
- Thread Turning Techniques
- Tool Selection and Parameter Optimization for Turning

05 Module 5: Simulation, Post-Processing, and Verification

- Toolpath Simulation and Collision Detection
- Understanding G-code and M-code
- Selecting and Customizing Post-Processors
- Generating NC Programs for Specific CNC Machines
- NC Code Verification and Troubleshooting
- Best Practices for Safe and Efficient Machining

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **CNC Programmer/Operator**
- > **Manufacturing Engineer specializing in CAM**
- > **Tool & Die Designer with CAM Integration**

FREQUENTLY ASKED QUESTIONS

Q: What foundational CAD skills are necessary to succeed in this Autodesk CAM course?

To excel in this Autodesk CAM course, a strong foundation in 3D CAD modeling is highly recommended. Proficiency in creating and modifying solid models, understanding geometric constraints, and familiarity with an Autodesk CAD software like Fusion 360, Inventor, or AutoCAD 3D is crucial, as CAM processes directly utilize these digital designs. Basic knowledge of mechanical drafting and part design principles will also be beneficial.

Q: What types of machining projects will I be able to confidently undertake after completing this Autodesk CAM certification?

Upon completing this Autodesk CAM course, you will be equipped to confidently program and manage machining projects involving 2D and 3D milling for components such as brackets, molds, fixtures, and custom parts. You'll also be proficient in generating toolpaths for 2-axis turning operations (lathe work) for cylindrical parts. This includes roughing, finishing, drilling, and threading operations, enabling you to produce a wide array of precision-machined components.

Q: How does this Autodesk CAM course integrate with industry-standard manufacturing practices and safety protocols?

This Autodesk CAM course is designed with industry relevance in mind, integrating best practices for toolpath optimization, material removal strategies, and surface finish quality that align with modern manufacturing demands. We cover crucial aspects of safety, including proper tool selection, understanding cutting parameters to prevent tool breakage, avoiding machine collisions through simulation, and the importance of verifying NC code before physical machining, preparing you for a responsible role in any workshop environment.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

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