



AUTODESK/AUTOCAD TRAINING

Autodesk Inventor

Master Autodesk Inventor for advanced 3D mechanical design. Learn to create complex parts, assemblies, and engineering drawings.

DURATION

Flexible

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

Computer Pride | 1st Floor, ICEA Building, Kenyatta Avenue, Nairobi | www.computer-pride.co.ke

COURSE OVERVIEW

This intermediate-level Autodesk Inventor course is meticulously designed to equip aspiring and current mechanical engineers, product designers, and manufacturing professionals with comprehensive skills in 3D mechanical design and digital prototyping. You will delve into the powerful capabilities of Autodesk Inventor, mastering parametric modeling, assembly design, detailed drawing creation, and basic simulation. The course focuses on practical, hands-on application, ensuring you gain proficiency in creating complex parts, managing large assemblies, and generating production-ready documentation.

By completing this certification, you will significantly enhance your ability to conceptualize, design, and validate mechanical products efficiently. You will learn to leverage Inventor's robust toolset for design automation, design analysis, and effective collaboration within engineering teams. This expertise translates directly into improved product innovation cycles, reduced prototyping costs, and a competitive edge in today's demanding engineering and manufacturing industries, preparing you for immediate impact in your professional role.

Level	Intermediate
Vendor	Autodesk/AutoCAD

COURSE CURRICULUM

01 Module 1: Autodesk Inventor Fundamentals and Part Modeling Basics

- User Interface and Navigation Essentials
- Sketching Tools and Constraints
- Creating Basic 2D Sketches for 3D Features
- Extrude, Revolve, Sweep, and Loft Features
- Fillets, Chamfers, Shells, and Drafts

02 Module 2: Advanced Part Modeling and Feature Creation

- Working with Work Features (Planes, Axes, Points)
- Advanced Patterning (Rectangular, Circular, Sketch-Driven)
- Introduction to Multi-Body Parts
- Creating Complex Surfaces and Sculpting Tools
- Sheet Metal Design Fundamentals (Flanges, Hems, Bends)

03 Module 3: Assembly Design and Management

- Placing and Constraining Components in Assemblies
- Using Assembly Design Accelerators (Gears, Bearings, Shafts)
- Creating Sub-Assemblies and Top-Down Design
- Interference Analysis and Design Validation
- Assembly Presentations and Exploded Views

04 Module 4: Drawing Creation and Documentation

- Generating Orthographic and Section Views
- Creating Auxiliary and Detail Views
- Dimensioning and Annotating Drawings to Standards
- Bill of Materials (BOM) Generation and Customization
- Customizing Drawing Templates and Title Blocks

Module 5: Digital Prototyping and Basic Simulation

- 05**
- Introduction to Stress Analysis (FEA) with Inventor Stress Analysis
 - Setting Up Materials and Constraints for Simulation
 - Interpreting Simulation Results (Displacement, Stress, Safety Factor)
 - Basic Motion Studies and Dynamic Simulation Introduction
 - Using iParts and iAssemblies for Design Automation

- 06** **Module 6: Advanced Tools and Data Exchange**
- Working with Weldment Designs and Fabrication Drawings
 - Introduction to Frame Generator
 - Managing Design Data and Introduction to Vault (optional)
 - Importing and Exporting CAD Data (STEP, IGES, SAT)
 - Best Practices for Design Collaboration and File Management

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Intermediate Mechanical Design Engineer specializing in 3D CAD modeling for product development.**
- > **CAD/CAM Technician focused on creating accurate manufacturing drawings and assembly instructions using Inventor.**
- > **Product Development Specialist utilizing digital prototyping to simulate product performance and validate designs.**

FREQUENTLY ASKED QUESTIONS

Q: What prior experience or software knowledge is recommended before enrolling in this intermediate Autodesk Inventor course?

This intermediate Autodesk Inventor course assumes participants have a foundational understanding of basic CAD principles and some experience with 2D drafting or entry-level 3D modeling software. Familiarity with engineering drawing conventions and mechanical design concepts will also be highly beneficial to maximize your learning experience and keep pace with the curriculum.

Q: How will mastering Autodesk Inventor through this Computer Pride course specifically improve my product design and manufacturing workflow efficiency?

Mastering Autodesk Inventor through our course will significantly boost your efficiency by teaching you advanced parametric modeling for quick design changes, robust assembly management to prevent errors, and digital prototyping for early design validation. You'll learn to automate tasks with iParts/iAssemblies and generate accurate documentation rapidly, directly leading to faster design cycles, fewer physical prototypes, and streamlined collaboration with manufacturing teams.

Q: What immediate career advantages can I expect to gain upon earning an Autodesk Inventor proficiency certificate from Computer Pride?

An Autodesk Inventor proficiency certificate from Computer Pride immediately positions you as a skilled professional in 3D mechanical design. You'll be highly competitive for roles requiring expertise in product development, advanced CAD operations, and digital prototyping. Employers will recognize your validated ability to use industry-standard tools to

accelerate design processes, improve product quality, and contribute to innovative engineering solutions, leading to enhanced career opportunities and potential for advancement.

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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