



AUTODESK/AUTOCAD TRAINING

Autodesk Inventor 2023 Course Mastering 3d Design

Master 3D design using Autodesk Inventor 2023. Create complex parts, assemblies, and drawings for real-world engineering.

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 Inventor 2023 course is meticulously designed for aspiring and current professionals looking to master advanced 3D mechanical design, product development, and simulation workflows. Participants will dive deep into Inventor's comprehensive toolset, moving beyond basic part modeling to tackle complex assemblies, advanced surfacing techniques, and automated design processes. The curriculum emphasizes practical application, ensuring you gain hands-on experience in creating sophisticated designs, generating detailed documentation, and preparing models for manufacturing.

By completing this course, you will significantly enhance your proficiency in critical engineering design principles, leveraging Inventor 2023's powerful features for design acceleration and innovation. You will learn to optimize designs for performance, manufacturability, and cost, directly translating into tangible benefits for your projects and employers. This certification equips you with the skills to confidently tackle real-world design challenges, streamline product development cycles, and become an invaluable asset in any engineering or manufacturing team.

Level	Intermediate
Vendor	Autodesk/AutoCAD

COURSE CURRICULUM

01 Module 1: Advanced Sketching and Part Modeling Techniques

- Review of fundamental sketching tools and constraints
- Introduction to adaptive and parametric sketching
- Advanced feature creation: sweeps, lofts, coils, and multisections
- Working with work features (planes, axes, points) for complex geometry
- Solid and surface modeling integration

02 Module 2: Complex Part Features and Freeform Modeling

- Creating advanced holes, threads, and fasteners
- Utilizing iFeatures and iParts for design reuse and standardization
- Introduction to Freeform modeling for ergonomic and aesthetic designs
- Sculpting and manipulating T-Spline surfaces
- Advanced patterning and mirroring techniques

03 Module 3: Advanced Assembly Design and Management

- Top-down and bottom-up assembly design methodologies
- Advanced assembly constraints and joint connections
- Creating and managing flexible subassemblies
- Interference analysis and contact sets
- Using Position Representations and Level of Detail (LOD) for performance

04 Module 4: Drawing Creation, Annotation, and Automation

- Generating production-ready 2D drawings from 3D models
- Advanced dimensioning, tolerancing, and annotation tools
- Customizing drawing templates, borders, and title blocks
- Creating exploded views and presentation files for documentation
- Automating drawing views and parts lists with iLogic

Module 5: Introduction to Simulation and Data Management

- 05**
- Basic stress analysis with Inventor's Nastran In-CAD
 - Setting up boundary conditions and loads for structural analysis
 - Interpreting simulation results and generating reports
 - Overview of Vault Basic for data management and revision control
 - Collaboration tools and data sharing workflows

06 Module 6: Parametric Design with iLogic and Design Accelerator

- Introduction to iLogic for design automation
- Writing simple iLogic rules to drive parameters and features
- Using Design Accelerator for standard component generation (gears, shafts, frames)
- Building custom component generators
- Project-based application of learned skills

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Advanced Mechanical Design Engineer specializing in complex machinery and product development.**
- > **CAD/CAM Specialist focused on optimizing designs for manufacturing and CNC programming.**
- > **Product Design and Development Lead responsible for iterative design and prototyping.**

FREQUENTLY ASKED QUESTIONS

Q: What are the recommended prerequisites for enrolling in this intermediate Autodesk Inventor 2023 course?

This course is designed for individuals who already possess foundational knowledge of Autodesk Inventor. We recommend having completed a basic Inventor training course or having at least 6 months of hands-on experience with fundamental 3D part modeling, basic assembly creation, and 2D drawing generation within Inventor. Familiarity with general mechanical design principles is also highly beneficial to maximize your learning experience.

Q: What types of complex design challenges will I be equipped to handle after completing this specific Inventor 2023 course?

Upon successful completion, you will be proficient in tackling intricate design challenges such as creating advanced parametric models, designing complex mechanical assemblies with dynamic motion, generating detailed manufacturing drawings with GD&T, and performing basic structural simulations. You'll be able to optimize designs for various constraints, work with freeform surfaces for industrial design, and leverage automation tools like iLogic to accelerate your design process for real-world projects.

Q: How does mastering Autodesk Inventor 2023 through this course enhance my career beyond entry-level CAD positions?

Mastering Inventor 2023 at an intermediate level positions you for roles that demand more than just basic drafting. You'll gain skills critical for product design, mechanical engineering, and R&D departments where complex problem-solving, design optimization, and effective data management are crucial. This expertise opens doors to becoming a lead designer, a specialist in a particular component type, or even moving into simulation and analysis roles, significantly accelerating your career progression and earning potential in the manufacturing and engineering sectors.

ABOUT COMPUTER PRIDE



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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+

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Take the next step in your technology career.

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