



AUTODESK/AUTOCAD TRAINING

Autodesk Fusion 360 Course

Master Autodesk Fusion 360 for integrated 3D design, manufacturing, and CAD/CAM. Create professional product prototypes efficiently.

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

The Autodesk Fusion 360 Course at Computer Pride offers an immersive and practical journey into the world of integrated product design and manufacturing. This intermediate-level program is meticulously designed for aspiring engineers, product designers, and CNC programmers seeking to master a powerful cloud-based platform that unifies CAD, CAM, CAE, and PCB design into a single package. Participants will learn to conceptualize, design, simulate, and manufacture products, gaining hands-on experience with tools essential for modern product development cycles. This course emphasizes practical application, collaborative workflows, and leveraging Fusion 360's comprehensive features to bring innovative ideas to life efficiently and effectively. Throughout the course, you will delve into core technologies such as parametric and direct modeling, advanced assembly techniques, robust simulation for performance analysis, and integrated CAM strategies for CNC machining and 3D printing. The professional benefits extend far beyond technical proficiency; graduates will be equipped to streamline design-to-manufacturing processes, foster collaborative team environments through Fusion 360's cloud capabilities, and significantly reduce design iterations and time-to-market. This certification empowers individuals to tackle complex engineering challenges, contributing meaningfully to industries ranging from consumer products and automotive to robotics and industrial machinery, making them highly sought-after professionals in the competitive global market.

Level	Intermediate
Vendor	Autodesk/AutoCAD

COURSE CURRICULUM

01 Module 1: Fusion 360 Foundations & 2D Sketching

- Fusion 360 User Interface and Workspace Management
- Project Creation, Data Management, and Cloud Collaboration Overview
- Basic 2D Sketching: Lines, Rectangles, Circles, Arcs
- Applying Sketch Constraints: Coincident, Tangent, Concentric, Parallel, Perpendicular
- Dimensioning Sketches and Understanding Parametric Design Principles

02 Module 2: 3D Modeling Techniques & Form Creation

- Extrude, Revolve, Sweep, and Loft for Solid Body Creation
- Modifying Features: Fillet, Chamfer, Shell, Draft
- Direct Modeling for quick design changes
- Introduction to T-Spline Sculpting (Form Environment) for Organic Shapes
- Working with Construction Planes, Axes, and Points

03 Module 3: Advanced Assemblies & Design Validation

- Creating and Managing Components and Sub-Assemblies
- Applying Joints: As-Built, Revolute, Slider, Planar, Cylindrical
- Performing Motion Studies and Animations
- Basic Simulation: Static Stress Analysis to evaluate design integrity
- Interference Detection and Clearance Analysis

04 Module 4: Integrated Manufacturing (CAM & Additive)

- CAM Workspace Setup: Stock Definition, Tool Library Management
- 2D & 3D Machining Strategies: Facing, Adaptive Clearing, Contour, Pocket
- Generating and Simulating Toolpaths for CNC Milling
- Post-Processing and G-Code Export

- Introduction to Additive Manufacturing: 3D Print Setup and Slicing

05 Module 5: Technical Documentation & Advanced Features

- Creating Professional 2D Engineering Drawings from 3D Models
- Adding Dimensions, Annotations, Sections, and Detail Views
- Generating Bill of Materials (BOM)
- Introduction to Generative Design for optimized solutions
- Photorealistic Rendering for Visualizations
- Cloud Collaboration Best Practices and Version Control

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Product Design Engineer**
- > **CNC Programmer/Machinist**
- > **Mechanical Design & Prototyping Specialist**

FREQUENTLY ASKED QUESTIONS

Q: What kind of complex product design and manufacturing challenges will I be equipped to solve after completing this intermediate Autodesk Fusion 360 Course?

Upon successful completion of this course, you will be proficient in tackling integrated product development challenges from concept to manufacture. You'll be able to design intricate mechanical components, create functional assemblies, perform basic stress simulations to validate designs, generate efficient CNC toolpaths for production, and prepare models for 3D printing. This includes designing custom enclosures, prototyping innovative gadgets, optimizing parts for specific manufacturing processes, and collaborating on complex engineering projects.

Q: What are the recommended prerequisites or prior knowledge required to get the most out of this intermediate Autodesk Fusion 360 Course?

This is an intermediate-level course, so a basic understanding of engineering design principles and familiarity with general computer-aided design (CAD) concepts would be highly beneficial, though not strictly mandatory. Experience with sketching and spatial reasoning is an advantage. While prior Fusion 360 experience isn't required, a willingness to learn complex software and a foundational grasp of geometry will help you accelerate your learning curve significantly.

Q: How does Fusion 360's integrated CAD/CAM/CAE environment uniquely benefit professionals seeking to streamline their product development workflow?

Fusion 360's true strength lies in its unified environment, eliminating the need to transfer files between disparate software for design, analysis, and manufacturing. This course will teach you how to leverage this integration to dramatically reduce errors, save time, and improve collaboration. You'll experience seamless transitions from a 3D model to simulation, then directly to toolpath generation for CNC machining or 3D printing, all within the same platform. This significantly accelerates the design-to-production cycle, allowing for faster iterations and more efficient project completion.

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.

Location

1st Flr, ICEA Building
Kenyatta Ave, Nairobi

Email

info@computer-pride.co.ke

Phone

+254 705 900 900

www.computer-pride.co.ke