



Inventor Intermediate

2 Day** Training Course

Overview

This training course builds upon what was learnt during the Autodesk Inventor Essentials course. It covers more advanced sketching, modelling and assembly techniques such as parametric part design, 3D sketching, Multi-Body parts and others. Throughout this course various examples will be used to demonstrate and test the skills being learnt. On completion of this course you will be able to, use parameters to drive part design, create thin walled objects and create parts within an assembly among taking advantage of other modelling techniques.

Prerequisites

- It is recommended that delegates are Microsoft Windows proficient.
- Creating, opening, and saving drawing files, changing the display of a drawing by zooming and panning, displaying and docking toolbars, saving and restoring named views, using object snaps, and managing layers and controlling layer visibility.
- Participants should have knowledge of how Inventor works and should be comfortable with simple designs in a 3D environment. Completion of the Autodesk Inventor Essentials course is recommended and drafting, and design experience is a plus.

Software

- Autodesk Inventor

What's Included?

- Course Notes & Stationery*
- Computer and software for the duration of course*
- Coffee, Tea & Delicious Lunch*
- WiFi Access*
- Autodesk Certified Instructor
- Internationally recognized Autodesk Authorized Training Certificate

* Pertains to in-class training only

** In-class training typically occurs over a 2 day period, customised training may differ

Course Content

SESSION - SETTING UP A PROJECT

- Project Types
- Location
- Part Creation

SESSION - DETAILED PART DESIGN

- Assembly Design

SESSION - CREATING & CONSTRAINING COMPONENTS

- Detailing

SESSION - BASICS

- Advanced Assemblies

SESSION - DESIGN ACCELERATORS

- More Working Drawing Features

Course Content

SESSION - GEOMETRY USE

- Sketching
- Dimension Types & Alignment (Arc Length)
- Displaying Degrees of Freedom
- Ellipses and Polygons
- Splines: Handles, Dimensioning, Tangency,
- Radius of Curvature, Smooth and Tangent Constraint.
- Inserting AutoCAD geometry
- Basic 3D Sketching

SESSION - PARAMETRIC PARTS

- Creating Parameters
- Dimension Display
- Linking Dimensions
- User Parameters
- Linking Part Dimensions to Parameters
- Exporting Parameters for Later Use

SESSION - DETAILED PART DESIGN

- Adding Detail
- Using the Decal Command
- Creating Embossed/Engraved Text
- Fillet Options, Face & Full Round Fillet
- Creating Lofted Shapes
- Selecting Sections
- Loft Types
- Setting Conditions
- Manual Transition Selection

SESSION - SELECTING RAILS (BOAT EXAMPLE)

- Creating Swept Shapes
- About Swept Shapes
- Creating Swept Shapes
- Guidelines for creating Swept Shapes
- Using Path & Guide Surface

SESSION - CREATING A COIL

- About Coils
- Needed Sketches
- Coil Options

SESSION - THIN-WALLED PARTS (SHELL)

- About Thin-Walled Parts
- Remove Faces
- Automatic Face Chain
- Other Commands

SESSION - SPLIT

- Creating A Split Tool
- Split options

SESSION - MULTI-BODY PART

- Creating a "New Solid"
- Viewing Multiple Solids

SESSION - USING FACE DRAFT

- Face Draft Options
- Needed Geometry

Course Content

SESSION - INTRO TO DERIVED PARTS

- About Derived Parts
- Creating A Derived Part

SESSION - CREATING SHEET METAL PARTS

- Sheet Metal Defaults
- Sheet Metal Commands
- Create Flat Pattern
- Assembly Design

SESSION - CREATING & CONSTRAINING COMPONENTS

- Constraining Components
- Motion Constraints
- Contact Sets
- Constraint Limits

SESSION - BASIC PART DESIGN IN AN ASSEMBLY

- Creating Components in Place
- Editing Components in Place
- Placing Standard Components Using the Content Center
- Manually Placing Frame Members
- Using Frame Generator

SESSION - INTERACTING WITH AN ASSEMBLY

- Motion and Sub-Assemblies
- Flexible Assemblies

SESSION - ANALYSIS

- Bill of Materials
- Checking for Interferences
- Driving Constraints for Simple Motion and Analysis

SESSION - RE-USING DESIGNS

- iLogic Copy Design
- Shrinkwrap

SESSION - PRESENTING YOUR ASSEMBLY

- About Presentations
- Creating Presentation Views
- Creating Tweaks and Trails
- Representations
- Styles and Libraries
- Sheet Metal Styles
- Material Library
- Appearance Library
- Detailing

SESSION - DIMENSIONING

- Dimension Arc Lengths
- Dimension to Apparent Intersection

SESSION - BASE AND PROJECTED VIEWS

- Creating Exploded Drawing Views

SESSION - DRAWING AND VIEW SKETCHES

- Creating Drawing Sketches
- Creating View Sketches

SESSION - BREAKOUT VIEW

- Breakout options
- More Working Drawing Features

Course Content

SESSION - ANNOTATION

- Sketch Symbols
- Creating Sketch Symbols
- Using Sketch Symbols
- Annotating Assembly Drawings
- Representations
- View Reps.
- Project Setup

SESSION - ANNOTATING USING TABLES

- Bend Tables
- Annotating Assembly Drawings

SESSION - BILL OF MATERIALS AND PARTS LISTS

- Bill of Materials
- About the Bill of Materials
- Item Number Manipulation
- Parts List and View Reps

SESSION - SETTING DRAWING STANDARDS

- About Styles
- Creating Styles with the Style Editor
- About Drawing Standards
- Properties of Drawing Standards
- Defining the Active Style

SESSION - DRAWING RESOURCES

- About Drawing Sheets
- Creating Sheets
- About Custom Borders & Title Blocks
- Creating custom Borders
- Creating Custom Title Blocks
- Advanced Assemblies

SESSION - DESIGN ACCELERATORS

- Introduction to the Design Accelerators
- Bolted Connections
- Shaft Generator

Course Registration Form

Please complete, sign and return together with proof of payment to mgfxsales@mgfx.co.za or fax 086 694 9404

Student Details			
Name	Cell No	Email address	Dietary requirements

Course Attending		Mark Course Type & Venue with X					
Course Name	Inventor						
Course Type	Essentials		Intermediate		Advanced		
Course Venue	Cape Town		Port Elizabeth		Durban		
Course Date					Course Duration	2 Days	

Invoicing Details			
Invoice Date		Vat no.	
Company Name		Telephone	
Physical Address		Fax	
		Account Contact	
		E-mail	
Micrographics SA (Pty) Ltd Bank Details		ABSA Newton Park Branch: 632005 Account: 4093 847 926 Reference: invoice number	

Terms & Conditions:

- Above Pricing Excludes VAT.
- Students are to be at the training venue by 08h00 in preparation for a 08h30 start time.
- Bookings can only be considered confirmation on receipt of payment.
- Bookings may be changed up to three weeks in advance of the course. A fee of 20% will be levied to cover charges.
- For full day courses, we will supply you with the relevant training material. A desktop computer to use for the training (where applicable) tea/coffee and a full lunch for full day InClass training hosted at the training center only. Catering is not included for OnSite training and laptop is available for hire at an additional cost if required.
- Cancellation or rescheduling requests must be in writing and reach us at least 5 (five) working days prior to the course commencement date. Full course fees may be retained for no shows or requests within 5 working days prior to commencement.
- Although we go to great lengths to ensure that all training proceeds as scheduled, we reserve the right to cancel or postpone\ dates if we require to do so and undertake to inform clients in writing and telephonically of these changes.
- We suggest clients wait until a week prior to course commencement that a course has been confirmed to go ahead as scheduled before booking flight and accommodation. We are NOT responsible for cost associated with cancellation of classes such as flight and accommodation for clients.
- Full training fees will apply if the above condition is not complied with.

Signed & Accepted

Name

Location