Inventor Essentials
3-5 Day** Training Course

Overview
The course will provide students with the best usage approaches for parametric design philosophy through a hands-on, practice-intensive curriculum. Students acquire the knowledge needed to complete the process of designing models from conceptual sketching, through to solid modeling, assembly design, and drawing production.

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 3-5 day period, customised training may differ

Course Content

INVENTOR IN A NUTSHELL
• A brief interactive session to provide a feel for the products capability

INTRODUCING INVENTOR AS A BIM TOOL
• What is BIM and what does it mean?
• The benefits of BIM
• What will BIM deliver? Industry drivers Introducing Levels of BIM
• Implications on team and workflow; fee and deliverables; contract and insurance issues

UI TOUR
• Introduction to the Autodesk Inventor interface
• Project setup
• Concept of parametric 3D design
• Exploring the general workflow of modelling parts
• Creating detailed drawings
• Assembly of the parts
• Detailing the assembly
• Parametric Sketching options
• The principles of creating parameter-driven sketches
• Creating part features using basic 2D and 3D sketches
• Using AutoCAD data to create sketches
Course Content

**BASIC PART MODELLING**
- The configuration of the general options and settings
- Tools and techniques involved with the creation of a 3D parametric part

**REUSING PARTS AND FEATURES**
- This module introduces iParts and iFeatures
- Improving efficiencies through the re-use of already created parts
- It examines the different workflows involved for reusing parts and features

**ADVANCED MODELLING TECHNIQUES**
- This module examines some of the primary tools
- Workflows used for multi-body part creation
- Extrusion to complex combinations
- Features such as curvy modelling techniques using:
  - 2D paths
  - Sweeps
  - Lofts
- Exploring tolerances, parameters and iProperties.

**ASSEMBLY DESIGN WORKFLOWS**
- Insight into this key concept of Autodesk Inventor design
- How assembly relationships using constraints and joint tools are created
- How to organise designs using structured sub-assemblies
- Using adaptive components
- Managing bills of materials
- How to substitute parts for sub-assemblies
- Working with assembly design accelerators, generators and designing calculations

**CREATING DRAWINGS AND ANNOTATIONS**
- This module introduces the drawing manager
- Creation of templates and styles
- Part and assembly drawings
- Annotation
- iParts and iAssembly drawings
- How to share the drawings outside of the workgroup in a variety of formats such as DWF and PDF

**PRESENTATIONS AND EXPLODED VIEWS**
- Presentation and storyboard tools available
- How these are used to create exploded views of assemblies
- Creating animated assembly instructions
- Repair manuals
- Part replacement diagrams
- 3D views and how to publish the animated assemblies as videos or animated DWF files

**LARGE ASSEMBLIES**
- Large assemblies
- How these are managed and opened quickly using the Express mode tools.
- Explore the tools, tips, settings and LOD strategies

**SHEET METAL PARTS**
- Productivity and capturing manufacturing requirements
- How to create accurate sheet-metal models and flat patterns
- How to create documentation and set up sheet-metal styles and templates

**THE FRAME GENERATOR**
- Frame modelling
- Member location
- Member insertion
- Treatments to frame ends
- Creating structural frames
- Publish profiles and Bills of Materials (BOM’s)

**WELDMENT DESIGN**
- Understanding of parts and assemblies
- Weldment modelling environment
- Weldment design and documentation tools
- Weldment workflows
- Applying weld preparations
- Weld beads
- Welding symbols together
- Quantify weldment design
Custom courses are available if the dates do not fall within your required dates. Custom courses and dates are available to companies. Please contact us to find out more about our custom course options. Kindly note that the ETA for manuals once ordered is 3-5 days and 3-4 weeks if there is no stock at the time of placing the order, pricing is subject to change.

 Dates indicated are subject to change. Above courses only presented if minimum requirements are met.

### Student Details
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### Course Attending

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### Invoicing Details

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### Terms & Conditions:

1. Above Pricing Excludes VAT.
2. Students are to be at the training venue by 08h00 in preparation for a 08h30 start time.
3. Bookings can only be considered confirmation on receipt of payment.
4. Bookings may be changed up to three weeks in advance of the course. A fee of 20% will be levied to cover charges.
5. 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.
6. Catering is not included for OnSite training and laptop is available for hire at an additional cost if required.
7. 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.
8. 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.
9. 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.
10. Full training fees will apply if the above condition is not complied with.

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**Signed & Accepted**

**Name**

**Location**