# COURSE CATALOG



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# GeT the GeT Everything Library

The GeT Everything Library provides you with annual access to all GeT Courses. GeT interactive, on-demand BIM training at your fingertips! All Access. Complete Control. One Low Price.

# **Autodesk**

AutoCAD® 2D Drafting and Annotation

AutoCAD® 3D

AutoCAD® Advanced

AutoCAD® Architecture

AutoCAD® Civil 3D

AutoCAD® Civil 3D Advanced Concepts

AutoCAD® Electrical

AutoCAD® LT

AutoCAD® Map 3D

AutoCAD® Mechanical

AutoCAD® MEP

AutoCAD® P&ID

AutoCAD® Plant 3D

Autodesk® 3ds Max®

Autodesk® 3ds Max® Design

Autodesk® A360

**BIM** 

Autodesk® Advance Steel

Autodesk® BIM 360® Docs

Autodesk® BIM 360® Field

Autodesk® BIM 360® Glue

Autodesk® Dynamo

Autodesk® FormIt 360

Autodesk® Fusion 360

Autodesk® Infraworks 360

Autodesk® Inventor®

Autodesk® Inventor® iLogic

Autodesk® Inventor® Professional

Autodesk® Inventor® Routed Systems

Autodesk® Maya® Animation

Autodesk® Maya® Modeling

Autodesk® Moldflow Adviser

Autodesk® Moldflow Insight

Autodesk® Nastran In-CAD

Autodesk® Navisworks®

Autodesk® Navisworks® Manage

Autodesk® Navisworks® Simulate

Autodesk® ReCap®

Autodesk® ReCap® Photo

Autodesk® ReCap® Pro

Autodesk® Rater Design

Autodesk® Revit® Advanced Concepts

Autodesk® Revit® Architecture

Autodesk® Revit® Families

Autodesk® Revit® MEP

Autodesk® Revit® MEP Advanced

Autodesk® Revit® Structure

Autodesk® Revit® Structure Advanced

Autodesk® Robot Structural Analysis

Professional

Autodesk® Showcase

Autodesk® Simulation Mechanical

Autodesk® Vault Basic

Autodesk® Vault Professional

Autodesk® Vault Workgroup

Autodesk Vehicle Tracking

BIM101 - Introduction

BIM102 - Collaborative BIM

BIM110 - BIM for Architects

BIM120 - BIM for Contractors

BIM130 - BIM for MEP Engineers

BIM140 - BIM for the Owner's Team BIM150 - BIM for Structural Engineers

# **Global BIM Standards**

BIM Fundamentals

BIM Acronyms

BIM Roles and Responsibilities

BIM & Collaborative Working

**BIM Commercials** 

BIM During an Asset Lifecycle

BIM Global Differences

**BIM Terminology** 

BIM Dimensions and Documents

The Importance of Data

# **Total Leadership**

Emotional Intelligence

**Great Relationships** Presentation Skills

Innovation and Problem Solving

Stress Management

Safety Program Implementation

**Emotional Experience Creation** 

Attract and Retain the Best People

Communication Skills

Time Management

Diversity and Inclusion

# Microsoft

Microsoft Access (2 Levels) Microsoft Excel (3 Levels) Microsoft Outlook (2 Levels) Microsoft PowerPoint (2 Levels)

Microsoft Project (2 Levels)

Microsoft Publisher

Microsoft Word (3 Levels)

# **Adobe**

Acrobat DC

Illustrator

Photoshop

InDesign

# **AEC**

Microstation Sketchup Solidworks

# McNeel

Grasshopper Level 1 Rhino 5 Level 1 (Beginner) Rhino 5 Level 2 (Intermediate) Rhino 5 Level 3 (Advance)

# Bluebeam

Bluebeam Revu Fundamentals Bluebeam Revu Intermediate

# **Primavera**

Introduction to Primavera P6 Professional Cost Management in Primavera P6 Professional Essential Activity Codes in Primavera P6 Progress Updating in Primavera P6 Project Baselines in Primavera P6 Resource Management in Primavera P6 Scheduling in Primavera P6

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# The Complete Guide Series

The Complete Guide series is designed to give you a solid understanding of software features and capabilities. The courses are divided into logically organized, easy-to-follow lectures and topics.

Along with text, graphics, audio, and video demonstrations, a typical lecture features multiple "Let Me Try" exercises that take you step by step through sometimes complex procedures. The goal of performing these steps on your own is an understanding that goes beyond simply knowing what things are called and where to find them, into practical experience with skills you can apply to real-world situations.

While each Let Me Try project presents different solutions and methods, we urge you to focus on the concepts and techniques presented, rather than memorizing the specific steps used. Out in the real world, you will be presented with many different situations, and understanding the "why" of what you're doing will help you more than memorizing the exact "how."

The Complete Guide series has been carefully structured not only to give you the knowledge and skills you need to be a successful software user, but also to prepare you for the certification exams. This is why we include guides that let you know which topics are of particular importance for certification.

# Choose your training delivery style:

The **Guided** course is structured to be completed in order from beginning to end. Once any topic is completed, you will have full access to it at any time for one year after registration, to use as a resource. The Guided courses includes Technical Help Desk Support as well qualifies for a Certificates of Completion when purchased through a participating Autodesk ATC®. Note, not all courses have the guided version.

The **Flexible** course is not structured like the Guided version, however does contain all the same content, including the lecture quizzes for your own assessment. Flexible course delivery allows full access to any area of the course and is available to you for one full year after registration. This allows you to find what you need, whenever you need it. The Flexible version is not eligible for the Certificate of Completion.

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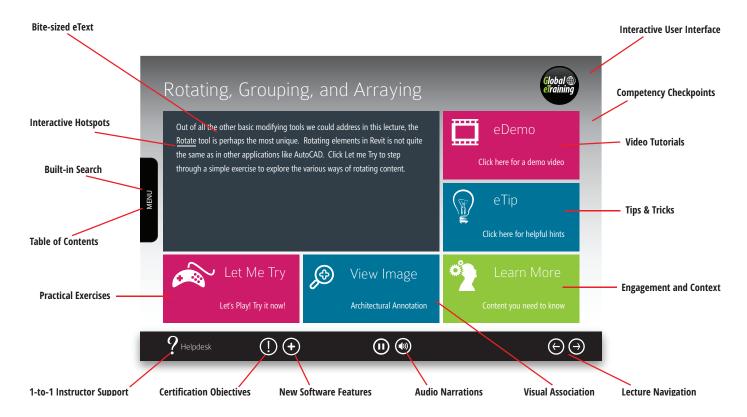


# Superior Learning Technology

Global eTraining patented learning methodology is superior because it adapts to each student's unique combination of learning styles with text, audio, demos, exercises, and videos, engaging all the senses and anchoring learning with action.

The Global eTraining cloud-based technical training platform is the foundation for comprehensive corporate, educational and government knowledge management solutions. The GeT platform combines our advanced training libraries alongside your proprietary know-how, which is converted to interactive and engaging courseware using The Generator.

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# **Awards**



# Join Our Team

Global eTraining is a team of dynamic training experts passionate about leveraging technology to the maximum to create a better, more personalized learning experience. Join our team: team@globaletraining.ca.



# AutoCAD 2D Drafting and Annotation

**AutoCAD 2D Drafting and Annotation The Complete Guide** is designed to give you a solid understanding of AutoCAD features and capabilities. This course covers Starting with Sketching, Layers, Dimension Styles, Dynamic Blocks and A360. Autodesk AutoCAD is a powerful CAD software helping professionals create 2D drawings faster and with more precision. Its simplified 2D drafting allows teams to work more efficiently by sharing drawings across connected desktop, cloud, and mobile solutions.

#### About the Author - Mike Thomas

Mike spent the first 12-years of his career in the Autodesk channel working for an Autodesk reseller as an Application Specialist. During his travels, he delivered countless hours of training, support, demos, and implementations. He was very fortunate to be able to help solve many issues with Autodesk software. Mike has been using AutoCAD since r13, cut his solid modeling teeth on Mechanical Desktop, and has been using Inventor since before it was known as Inventor. Data Management has always been a big part of his professional life, for the most part with Autodesk Vault.

# User's prerequisites

You don't need any previous experience with AutoCAD® to take this course.

#### **Course Outline**

#### New for AutoCAD 2019

- General Updates
- Drawing Compare
- · Document Improvements
- · Layer Enhancements

#### Introduction to AutoCAD

- · Introduction to AutoCAD
- · Getting Started with AutoCAD

#### Starting with Sketching

- Drawing Lines
- · Creating Other 2D Objects
- AutoCAD Polylines
- · Adding Points

#### **Working with Drawing Aids**

- · Drawing Aids
- More Drawing Aids

#### **Editing Sketched Objects**

- · Editing Sketched Objects
- Duplicating Objects
- Separating and Joining Sketched Objects
- More Editing Tools

# Layers

- · Working with Layers
- Layer Tools

#### **Editing Sketched Objects II**

- · Object Properties
- · Utilizing Grips

# **Creating Text and Tables**

- Annotative Objects
- Creating Text
- Using Tables
- · More Text Tools

#### **Dimensioning and Detailing Your Drawings**

- Dimensioning
- · More Dimensioning
- · Working with True Associative Dimensions
- · Adding Leaders

#### **Editing Dimensions**

- Editing Dimensions Using Editing Tools
- · Editing Dimensions Part 2

#### **Dimension Styles**

- · Dimension Styles
- Using Dimension Styles

#### **Adding Constraints to Sketches**

- · Constraints in a Sketch
- Dimensions, Parameters, and Equations

#### Hatching Drawings

- Hatching Basics
- Modifying Hatch Properties

#### Paper Space

- · Paper Space Layouts
- Adding Viewports
- · Working with Viewports
- Layout Tools

# **Plotting Drawings**

- · Plotting Drawings In AutoCAD
- Plot Styles and Page Setups
- Publishing to other File Types

#### **Template Drawings**

- Templates
- Customizing Templates

#### **Working with Blocks**

- · Working with Blocks
- Inserting Blocks
- Changing Blocks

#### **Dynamic Blocks**

· Building Dynamic Blocks

#### **AutoCAD Sheet Sets**

- An Introduction to Sheet Sets
- Build a Sheet Set
- · Sheet Set Views

#### AutoCAD and A360

· AutoCAD in the Cloud

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# AutoCAD 3D

**AutoCAD 3D The Complete Guide** is designed to give you a solid understanding of AutoCAD features and capabilities. This course covers Getting Started with 3D, Views of 3D Models, Creating Surface Models, Creating Meshes, and Cameras and Creating the Animation. Autodesk AutoCAD is a powerful CAD software helping professionals create 3D models faster and with more precision. Its simplified 3D modeling allows teams to work more efficiently by sharing models across connected desktop, cloud, and mobile solutions.

#### **About the Author - Mike Thomas**

Mike spent the first 12-years of his career in the Autodesk channel working for an Autodesk reseller as an Application Specialist. During his travels, he delivered countless hours of training, support, demos, and implementations. He was very fortunate to be able to help solve many issues with Autodesk software. Mike has been using AutoCAD since r13, cut his solid modeling teeth on Mechanical Desktop, and has been using Inventor since before it was known as Inventor. Data Management has always been a big part of his professional life, for the most part with Autodesk Vault.

#### User's prerequisites

You don't need any previous experience with AutoCAD® to take this course.

# **Course Outline**

#### New for AutoCAD 2019

- Performance and Security Updates
- User Interaction Changes
- · Document Improvements

# **AutoCAD 3D Modeling**

- · Getting Started with 3D
- · The User Coordinate SystemAutoCAD Commands for 3D

#### **Creating Solid Models**

- · Creating Solids
- More Tools for Building Solid Models

# **Editing 3D Objects**

- · Editing 3D Objects
- More Tools

#### **Creating Views**

- · Views of 3D Models
- Drawing Views
- · Additional Tools

#### **Surface Modeling**

- Creating Surface Models
- Modifying Surfaces

#### Mesh Modeling

- · Creating Meshes
- · Working with Meshes

# **Rendering and Animating Designs**

- Materials
- · Working with Lights
- · Cameras and Creating the Animation

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# AutoCAD Advanced

**AutoCAD Advanced The Complete Guide** course is designed to give you a solid understanding of AutoCAD and its advanced features. In this course, you will learn from working with attributed blocks to isometric and technical drawing concepts. This course includes text, images, audio, video, quizzes and practical Let Me Try exercises to accommodate all learning styles. Autodesk AutoCAD Advanced is ideal for architects and design engineers looking for advanced design, documentation tools, powerful 3D modeling, collaboration, and workflow customization. This course incorporates features, commands, and techniques for becoming more productive when creating, annotating and printing drawings.

#### About the Author - Mike Thomas

Mike spent the first 12-years of his career in the Autodesk channel working for an Autodesk reseller as an Application Specialist. During his travels, he delivered countless hours of training, support, demos, and implementations. He was very fortunate to be able to help solve many issues with Autodesk software. Mike has been using AutoCAD since r13, cut his solid modeling teeth on Mechanical Desktop, and has been using Inventor since before it was known as Inventor. Data Management has always been a big part of his professional life, for the most part with Autodesk Vault.

## User's prerequisites

You don't need any previous experience with AutoCAD® to take this course.

#### **Course Outline**

- New For 2019
- · Block Attributes
- · Data, Linking, and Extraction
- · Reference External Drawing Files
- Underlays
- · Data Exchange
- · Sharing Data
- Drawing Tools
- Editing of Sketched Objects
- Linetypes
- Adding Constraints to Sketches
- Hatch Patterns
- AutoCAD Customization
- Dynamic Blocks
- AutoCAD Sheet Sets

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# AutoCAD LT

**AutoCAD LT The Complete Guide** is designed to give you a solid understanding of AutoCAD LT, its features, and capabilities. This course covers Starting with Sketching, Layers, Dimension Styles, Plotting Drawings and A360. Autodesk AutoCAD is a powerful CAD software helping professionals create 2D drawings faster and with more precision. Its simplified 2D drafting allows teams to work more efficiently by sharing drawings across connected desktop, cloud, and mobile solutions.

#### **About the Author - Mike Thomas**

Mike spent the first 12-years of his career in the Autodesk channel working for an Autodesk reseller as an Application Specialist. During his travels, he delivered countless hours of training, support, demos, and implementations. He was very fortunate to be able to help solve many issues with Autodesk software. Mike has been using AutoCAD since r13, cut his solid modeling teeth on Mechanical Desktop, and has been using Inventor since before it was known as Inventor. Data Management has always been a big part of his professional life, for the most part with Autodesk Vault.

# User's prerequisites

You don't need any previous experience with AutoCAD® LT to take this course.

# **Course Outline**

#### New for AutoCAD 2019

- General Updates
- Drawing Compare
- · Document Improvements
- · Layer Enhancements

#### Introduction to AutoCAD

- · ntroduction to AutoCAD
- · Getting Started with AutoCAD

#### **Starting with Sketching**

- · Drawing Lines
- Creating Other 2D Objects
- · AutoCAD Polylines
- Adding Points

#### **Working with Drawing Aids**

- · Drawing Aids
- · More Drawing Aids

## **Editing Sketched Objects**

- · Editing Sketched Objects
- Duplicating Objects
- Separating and Joining Sketched Objects
- · More Editing Tools

# Layers

- · Working with Layers
- · Layer Tools

#### **Editing Sketched Objects II**

- · Object Properties
- Utilizing Grips

#### **Creating Text and Tables**

- · Annotative Objects
- · Creating Text
- Using Tables
- · More Text Tools

#### **Dimensioning and Detailing Your Drawings**

- Dimensioning
- More Dimensioning
- · Working with True Associative Dimensions
- Adding Leaders

#### **Editing Dimensions**

- Editing Dimensions Using Editing Tools
- Editing Dimensions Part 2

## **Dimension Styles**

- · Dimension Styles
- Using Dimension Styles

#### **Adding Constraints to Sketches**

- · Constraints in a Sketch
- Dimensions, Parameters, and Equations

# **Hatching Drawings**

- Hatching Basics
- Modifying Hatch Properties

# **Paper Space**

- Paper Space Layouts
- · Adding Viewports
- Working with Viewports
- · Layout Tools

#### **Plotting Drawings**

- Plotting Drawings In AutoCAD
- Plot Styles and Page Setups
- · Publishing to other File Types

## **Template Drawings**

- Templates
- Customizing Templates

# **Working with Blocks**

- Working with Blocks
- · Inserting Blocks
- · Changing Blocks

#### **AutoCAD Sheet Sets**

- · An Introduction to Sheet Sets
- Build a Sheet Set
- · Sheet Set Views

#### AutoCAD and A360

• AutoCAD in the Cloud

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# AutoCAD Civil 3D

**AutoCAD Civil 3D The Complete Guide** is designed to give you a solid understanding of Civil 3D, its features, and capabilities, from the basics through to the most advanced and complex topics. This course covers Working with points, Alignments, Pipe Networks, and Pressure Networks. AutoCAD Civil 3D is an engineering software used by civil engineers and other professionals to plan, design, and manage civil engineering projects. Using AutoCAD Civil 3D, infrastructure professionals can better understand project performance, maintain more consistent data and processes, and respond faster to change.

#### About the Author - Mike Thomas

Mike spent the first 12-years of his career in the Autodesk channel working for an Autodesk reseller as an Application Specialist. During his travels, he delivered countless hours of training, support, demos, and implementations. He was very fortunate to be able to help solve many issues with Autodesk software. Mike has been using AutoCAD since r13, cut his solid modeling teeth on Mechanical Desktop, and has been using Inventor since before it was known as Inventor. Data Management has always been a big part of his professional life, for the most part with Autodesk Vault.

# User's prerequisites

You don't need any previous experience with AutoCAD® Civil 3D to take this course.

#### **Course Outline**

#### New for Civil 3D 2019

· New 2018 Features Overview

# **Working with Points**

- · Working with Points
- · Editing Point
- · Exporting and Importing Points

#### **Feature Lines and Grading**

- Feature Lines
- Grading

## **Working with Surfaces**

- Working with Surfaces
- Adding to Surfaces
- Editing Surfaces
- Exporting & Sharing Surfaces

#### **Surface Volumes and Analysis**

- Exporting & Sharing Surfaces
- Surface Labels and Tables

# Alignments

- · Creating Alignments
- · Alignment Labeling

#### **Working with Profiles**

- · Working with Profiles
- · Editing Profiles
- Profile Labels

#### **Working with Assemblies and Subassemblies**

- Working with Assemblies and Subassemblies
- Subassemblies

# **Working with Corridors**

- Creating Corridors
- · Corridor Attributes
- · Corridors Editing
- · Corridor Analysis

## **Parcels**

Parcels

# Sample Lines, Sections, and Quantity Takeoffs

- Sample Lines
- · Section Views
- · Section View Edits & Analysis

# **Pipe Networks**

- · Pipes and Structures
- · Part Catalog
- Pipe Network
- Pipe & Structure Labeling

#### Pressure Networks

- Pressure Networks
- · Pressure Network Properties
- Pressure Network Labeling

#### **Working with Plan Production Tools and Data Shortcuts**

- · Working with Plan Production Tools and Data Shortcuts
- Data Shortcuts

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# AutoCAD Civil 3D Advanced Concepts

**AutoCAD Civil 3D Advanced Concepts The Complete Guide** is designed to give you a greater understanding of additional Civil 3D features ranging from Surface Analysis methods to using Transparent Commands. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical Let Me Try examples.

#### **About the Author - Mike Thomas**

Mike spent the first 12-years of his career in the Autodesk channel working for an Autodesk reseller as an Application Specialist. During his travels, he delivered countless hours of training, support, demos, and implementations. He was very fortunate to be able to help solve many issues with Autodesk software. Mike has been using AutoCAD since r13, cut his solid modeling teeth on Mechanical Desktop, and has been using Inventor since before it was known as Inventor. Data Management has always been a big part of his professional life, for the most part with Autodesk Vault.

# User's prerequisites

You don't need any previous experience with AutoCAD® Civl 3D to take this course.

# **Course Outline**

- · Survey Database
- Points
- · Point Clouds
- · Surface Analysis
- Alignments
- Assemblies
- Corridors
- Vehicle Tracking
- · Transparent Commands
- Parcels
- Suite Interoperability
- · Storm Sewer Analysis (SSA)
- HEC-RAS

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# Autodesk 3D Max

**Autodesk 3ds Max The Complete Guide** is designed to give you a solid understanding of 3ds Max features and capabilities from the basics through to the most advanced topics. This course covers Object Creation, Materials and Maps, Lights, Cameras and Animation Basics. 3ds Max is a complete 3D computer graphics program that helps professionals and artists create 3D animations, astounding environments, models, games, images, and everything in between.

#### About the Author - David Hobson

The course was created by 3ds Max Expert David Hobson - Davis is a 3ds Max Certified Professional and an Autodesk Certified Instructor. He is also an Accredited Member of the Institute of Videography.

# User's prerequisites

You don't need any previous experience with Autodesk® 3D Max to take this course.

#### **Course Outline**

#### New for 3ds Max 2019

- · New Map Applications
- · Creating Shapes
- Project Structure
- · Arnold Renderer
- · View and Share Designs

#### Introduction to 3ds Max

- Introduction
- Drawing Tools
- Units & Help

#### **Object Selection**

- · Selection Tools
- Explorer Tools

#### 3D Objects

- · Standard Primitives
- Extended Primitives
- · Working with Architectural Objects
- Architectural Objects Doors
- Windows
- Stairs

#### 2D Shapes

- Splines
- · Extended Splines

#### **Modifying 2D Shapes**

- · Modifying Splines
- Selections
- · Geometry Rollout

#### **Materials and Maps**

- · Rendering Images
- · Material Tools
- · Material Properties
- · Other Materials
- Maps

# **3D Mesh Objects**

- Modifying 3D Mesh Objects
- · Edit Geometry Rollout
- · Editable Poly Objects
- Editable Poly Rollouts

# **Graphite Modeling Technique**

- Polygon Modeling Panel
- · Edit Panel
- · Geometry Panel
- · Modify Selection Panel
- · Loops Panel

#### **NURBS Modeling**

- · Curves and Surfaces
- · NURBS Parameter Rollout
- · Compound Objects
- Compound Objects

#### **Modifiers**

- · Mesh Modifiers
- · Geometry Modifiers
- · Material and Map Modifiers

#### **Lights and Cameras**

- Lights
- Cameras

# **Animation Basics**

- Animation Controls
- Rendering an Animation

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# Autodesk 3D Max Advanced Concepts

**Autodesk 3ds Max Advanced Concepts The Complete Guide** is designed to give you a solid understanding of 3ds Max features and capabilities to the most advanced topics. This course covers Systems and Kinematics, Body Dynamics and Particle Flow. 3ds Max is a complete 3D computer graphics program that helps professionals and artists create 3D animations, astounding environments, models, games, images, and everything in between.

#### About the Author - David Hobson

The course was created by 3ds Max Expert David Hobson - Davis is a 3ds Max Certified Professional and an Autodesk Certified Instructor. He is also an Accredited Member of the Institute of Videography.

# User's prerequisites

You don't need any previous experience with Autodesk® 3D Max to take this course.

#### **Course Outline**

#### New for 3ds Max 2019

- · Material and Maps
- New Shape Tools
- Render Setup
- Publishing Content

# Systems, Hierarchy, and Kinematics

- · Ring Array Systems
- Lighting Systems
- Hierarchies
- Bone Systems

# **Rigid Body Dynamics and Helpers**

- Body Dynamics
- Constraints
- · Controls and Tools
- Helpers
- n the Cloud

#### **Particle Flow**

PF Source

#### **Particle Systems and Space Particle Systems**

- Particle Mesh
- Space Warps
- Deflector Space Warps
- Extended Space Warps

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# **Autodesk Inventor**

**Autodesk Inventor The Complete Guide** is designed to give you a solid understanding of Inventor, its features, and capabilities; from the basics through to the most advanced and complex topics. This course covers Sketching, Adding Part Features, Creating the Drawing, Presentations, and Weldments.

Autodesk Inventor is a 3D parametric modeling system, offering professional-grade 3D mechanical design, documentation, and product simulation tools. With Inventor, you can create 3D digital prototypes and then use them to create drawings, visualizations, and simulations.

#### **About the Author - Mike Thomas**

Mike spent the first 12-years of his career in the Autodesk channel working for an Autodesk reseller as an Application Specialist. During his travels, he delivered countless hours of training, support, demos, and implementations. He was very fortunate to be able to help solve many issues with Autodesk software. Mike has been using AutoCAD since r13, cut his solid modeling teeth on Mechanical Desktop, and has been using Inventor since before it was known as Inventor. Data Management has always been a big part of his professional life, for the most part with Autodesk Vault.

# User's prerequisites

You don't need any previous experience with Autodesk® Inventor to take this course.

#### **Course Outline**

#### **New for Autodesk Inventor 2019**

- Professional Grade Design Tools
- Collaboration and Storing Data in the Cloud
- · Subscription Enhancements
- Part Updates
- Assembly Enhancements

#### **Introduction to Autodesk Inventor**

- Welcome to Autodesk Inventor
- Getting Started with Inventor

# Sketching

- Sketching with Inventor
- More Sketching Features

#### **Constraints and Dimensions**

- Adding Parametric Constraints
- · Utilizing Parametric Dimensions

# **Sketch Tools**

- Sketching Tools
- Patterning
- 3D Skretching

#### **Building the 3D Model**

- · Sketched Features
- · More Part Tools
- · Work Features
- · Parameters

#### **Adding Part Features**

- · Placed Features
- · More Features
- Freeform Modeling

# **Building More Advanced Parts**

- Sweeps and Lofts
- · More Part Features
- Surfacing Tools

#### **Assembly Modeling**

- Assembling Components
- More Constraint Options
- More Assembly Tools

#### **More Assembly Modeling**

- Working with Components
- Duplicating Components
- Representations

# **Creating the Drawing**

- Generating Views
- · Working with Drawing Views

#### **Detailing and Annotation**

- Dimensioning
- Part List, Balloons, and Text

#### **Presentations**

- Creating Presentations
- Sharing the Information

# **Sheet Metal**

- · Using the Sheet Metal Module
- · More Sheet Metal Features

#### Weldments

- Weldments
- · Working with Weldments

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# Autodesk Inventor iLogic

**Autodesk Inventor's iLogic The Complete Guide** feature enables you to automate and standardize design processes, providing a simple way to capture and reuse your work. iLogic embeds rules as objects directly into part, assembly, and drawing documents. The rules determine and drive a designs parameter and attribute values. By controlling these values, you can define the behavior of the attributes, features, and components of a model. With iLogic, Inventor users can analyze problems, and define new standards and templates - enabling them to create not only single products but entire product families.

# User's prerequisites

You don't need any previous experience with Autodesk® Inventor iLogic to take this course.

# **Course Outline**

#### Learning Objectives:

- · Starting with iLogic
- Rule Creation
- · Working with Parts
- Assemblies
- Drawings and iLogic
- · Working with Microsoft Excel
- · Interaction with the User

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# Autodesk Inventor Routed Systems

Autodesk Inventor is a parametric CAD software offers an easy-to-use set of tools for 3D mechanical design, documentation, and product simulation. Digital Prototyping with Inventor helps you design and validate your products before they are built to deliver better products, reduce development costs, and get to market faster.

**Autodesk Inventor Routed Systems: The Complete Guide** is designed to give you a solid understanding of more complex modeling options available in Inventor. These options include the tools and analyses for adding Tubing and Piping to an Inventor model, as well as describing how to add Cables and Harnesses.

# User's prerequisites

You don't need any previous experience with Autodesk® Inventor to take this course.

#### **Course Outline**

## **Learning Objectives:**

- Introduction to Tube & Pipe
- · Rigid Pipe
- Tubing
- · Self-Draining Pipe
- Flexible Hose
- · Component Authoring
- Tube and Pipe Documentation
- Introduction to the Cable and Harness Environment
- Harnesses
- · Ribbon Cables
- Harness Documentation

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# Autodesk Navisworks Manage

**Autodesk Navisworks Manage The Complete Guide** is designed to give you a solid understanding of Navisworks Manage features and capabilities from the basics to the more advanced topics. This course covers the Navisworks User Interface, BIM 360 Tools, Viewpoints, Quantification, Class detection and The rendering window.

Autodesk Navisworks Manage is a software designed to provide an environment to coordinate project information in a neutral location. The intention is to ensure that all parties share their project information and link it to the Navisworks environment for better coordination and control of the project.

# User's prerequisites

You don't need any previous experience with Autodesk® Navisworks to take this course.

#### **Course Outline**

#### New for Navisworks 2019

- · Introduction to Autodesk Navisworks
- · The User Interface
- · BIM 360 Tools

# **Navigation Tools**

· Navigation Tools

#### Selecting, Controlling, and Reviewing Objects

- · Selecting Objects
- · Controlling and Reviewing

#### Viewpoints, Sections, and Animations

- · Viewpoints
- Sections
- Animations

## TimeLiner

· Working with the Timeliner

# **Working with Animator and Scripter**

- · The Animator Window
- The Scripter Window

#### Quantification

• Quantification

#### **Clash Detection**

- · Clash Detective Workflow
- Managing Clash Tests

#### Autodesk Rendering

· The Rendering Window

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Autodesk Navisworks Simulate

**Autodesk Navisworks Simulate The Complete Guide** is designed to give you a solid understanding of Navisworks features and capabilities, from the basics to the more advanced topics. This course covers the Navisworks User Interface, BIM 360 Tools, Viewpoints, Quantification, and Rendering.

Autodesk Navisworks is a software designed to provide an environment to coordinate project information in a neutral location. The intention is to ensure that all parties share their project information and link it to the Navisworks environment for better coordination and control of the project.

# User's prerequisites

You don't need any previous experience with Autodesk® Navisworks to take this course.

#### **Course Outline**

New for Navisworks 2019

#### **Introduction to Autodesk Navisworks**

- The User Interface
- BIM 360 Tools

# **Navigation Tools**

· Navigation Tools

# Selecting, Controlling, and Reviewing Objects

- · Selecting Objects
- Controlling and Reviewing

# **Viewpoints, Sections, and Animations**

- Viewpoints
- Sections
- Animations

#### TimeLiner

· Working with the TimeLiner

#### **Working with Animator and Scripter**

- · The Animator Window
- · The Scripter Window

#### Quantification

Quantification

#### **Autodesk Rendering**

· The Rendering Window

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Autodesk ReCap

**Autodesk ReCap** reality capture software and services enable users to capture and integrate reality data directly into your design process. ReCap works with Autodesk design and creation suites, so you can start your design with accurate 3D data and full photo-quality context rather than a blank screen.

#### About the Author

Rebecca De Cicco has always had a keen interest in digital technologies and how they can radically change the way we work and interact in the Built Environment. Having studied and been employed in Australia as an Architect the basis for her experience involved managing and training teams to utilize technology and interact with those ready and willing for change to enable a more efficient workflow.

Rebecca lived in the UK for almost 10 years and following a series of successful senior roles in varied architectural organizations, Rebecca now manages her own consultancy, Digital Node, providing advice and insight to construction professionals globally on advanced digital solutions on projects as well as BIM implementation and management processes. It is with this knowledge that she can communicate, train and manage teams in a BIM environment as well as ensure her knowledge is spread throughout the industry within education and not for profit groups.

Rebecca supports Building Smart globally, sits on the Autodesk Developer Network and Expert Elite groups and works with the UK BIM Alliance and BIM Regions to help industry upskill. She is a strong advocate for diversity (Chair of @WomeninBIM) and works with higher education by tutoring and lecturing both undergraduate and postgraduate students in BIM and Construction Management.

Rebecca is also a fellow of the CIOB and offers support and training to the likes of BSI, CIOB, RICS and other institutions in the BIM space. Her interest in training and upskilling also involves a strong social media presence for herself (@becdecicco), her organization (@digital\_node) and finally her diversity group (@WomeninBIM).

#### User's prerequisites

You don't need any previous experience with Autodesk® ReCap to take this course.

## **Course Outline**

# **Introduction to Autodesk ReCap**

- Introducing Autodesk ReCap
- Getting Started with ReCap
- File Formats & Usability
- · Resources

# Importing, Opening and Saving

- Creating a New Project
- General Point Cloud Settings
- Saving the Project

#### The User Interface

- Introduction to the User Interface
- Display Settings
- · Project Navigator

# **View and Navigation**

- View and Navigation Tools Overview
- · Navigating the Point Cloud

# **Point Cloud Appearance**

- · Point Cloud Appearance Settings
- Point Cloud Color modes
- Point Cloud Lighting and Shading

#### **Organizing and Editing Point Clouds**

- Editing Point Clouds
- Grouping Scan Data
- Scan Location Settings

# **Measurement and Labeling**

- · Basics of Measurement
- · Working with Annotation

# **Exporting / Importing and Use of Scan Data**

- · Export and Import Settings
- Exporting ReCap Projects for use in Other Applications

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# Autodesk ReCap Pro

**Autodesk ReCap** reality capture software and services enable users to capture and integrate reality data directly into your design process. ReCap works with Autodesk design and creation suites, so you can start your design with accurate 3D data and full photo-quality context rather than a blank screen.

#### **About the Author**

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#### User's prerequisites

You don't need any previous experience with Autodesk® ReCap Pro to take this course.

## **Course Outline**

# Introduction to Autodesk ReCap

- Introducing Autodesk ReCap
- Getting Started with ReCap
- File Formats & Usability
- · Resources

# Importing, Opening and Saving

- Creating a New Project
- General Point Cloud Settings
- Saving the Project

#### The User Interface

- Introduction to the User Interface
- Display Settings
- · Project Navigator

# **View and Navigation**

- View and Navigation Tools Overview
- · Navigating the Point Cloud

# **Point Cloud Appearance**

- Point Cloud Appearance Settings
- Point Cloud Color modes
- Point Cloud Lighting and Shading

#### **Organizing and Editing Point Clouds**

- · Editing Point Clouds
- Grouping Scan Data
- Scan Location Settings

# Measurement and Labeling

- · Basics of Measurement
- · Working with Annotation

# **Exporting / Importing and Use of Scan Data**

- · Export and Import Settings
- Exporting ReCap Projects for use in Other Applications

# **Getting Started with Autodesk ReCap Pro**

- Getting started with ReCap Pro
- · Using Scan Data

# Registration with ReCap Pro

- Registration Fundamentals
- · Accuracy Reports
- New Features

# **UAV Features- ReCap Photo**

- · Introduction to ReCap Photo
- Starting a Project
- · Photo to Mesh Manipulation and Review

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# Autodesk Revit Advanced Concepts

**Autodesk Revit Advanced Concepts The Complete Guide** is designed to give you a solid understanding of Revit and its advanced concepts. It emphasizes construction modeling and assemblies techniques, design options, presentation views, and scheduling and tags. Also, the course covers the various stages involved in conceptual design and projects and setting management.

Revit Advanced provides tools specific to structural design for buildings and infrastructure projects. This course is specially meant for professionals in structural engineering, civil engineering and allied fields in the building industry. It helps them improve multidiscipline coordination by using crucial information from architectural and engineering files, whether from Revit models or from 2D file formats, delivering a more reliable model for more efficient and more accurate design and documentation.

# User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

#### **Course Outline**

#### New for 2019

#### **Construction Modeling**

- Construction Modeling
- Assemblies

#### **Phases and Design**

- · Phases and Design
- · Design Options

## **Site Tools and Design Analysis**

- · Site Tools
- · Energy and sun

# **Presentation Views**

- Presentation Views
- · Using Decals and Shadows

## **Schedules and Tags**

- Tags
- Schedules

## **View Graphics**

- Visibility
- Overrides

#### Renderings and Walkthrough

- Sun Settings
- Rendering

#### **Project and Setting Management**

- Organization
- · Project Management
- · Settings Management

#### **Walls and Curtain Walls**

- Curtain Walls
- Walls

# **Conceptual Design**

- · Conceptual Mass
- Forms
- Divided Paths and Surface
- Mass Elements

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# Autodesk Revit Architecture

**Autodesk Revit Architecture 2019 The Complete Guide** is designed to give you a solid understanding of Revit Architecture, its features, and capabilities, from the basics through to the most advanced and complex topics. This course covers Creating Walls, Adding Site Features, Using Massing Tools, Rendering and Walkthroughs, and Using Advanced Features.

Autodesk Revit allows professionals to optimize building performance and share model data with engineers and contractors. It is software for architectural design, MEP, and structural engineering, and a solution for collaborative BIM; its powerful tools let you use the intelligent model-based process to plan, design, construct, and manage buildings and infrastructure.

#### User's prerequisites

You don't need any previous experience with Autodesk® Revit Architecture to take this course.

#### **Course Outline**

#### **New for Revit Architecture 2019**

#### Introduction to Revit Architecture

- User Interface
- · Options and Help
- Starting an Architectural Project

# **Starting a New Architectural Project**

Navigation Tools

C

# reating Walls

- Creating Architectural Walls
- · Creating Architectural Walls II

#### **Using Basic Building Components I**

- Adding Doors
- Adding Window and Wall Openings

#### **Using the Editing Tools**

- · Working with Selection Sets
- Editing Tools
- Editing Tools II
- Grouping
- Retrieving Information about Elements

# **Datum Planes and Creating Standard Views**

- Working with Reference Planes
- · Working with Levels
- Working with Grids
- Working with Project Views

## **Using Basic Building Components II**

- · Creating Floors
- · Creating Roofs
- Shape Editing Tools
- · Creating Ceilings
- Adding Rooms

# **Using Basic Building Components III**

- · Working with Components
- Adding Stairs
- · Adding Railings and Ramps
- · Creating Curtain Walls

# **Adding Site Features**

- · Working with Site Features
- · Property Lines and Building Pads
- · Adding Site Components

# **Using Massing Tools**

- Understanding Massing ConceptsCreating Massing Geometry
- · in the Family Editor
- Creating Families

#### **Adding Annotations and Dimensions**

- Adding Tags
- Keynotes

#### Creating Project Details and Schedules

- Project Detailing
- Adding Text Notes
- · Working with Schedules

## **Creating Drawing Sheets and Plotting**

- Creating Drawing Sheets
- Creating Duplicate Dependent Views

#### Creating 3D Views

· Three Dimensional Views

# From Rendering to Walkthroughs

- · Working with Materials
- · Rendering in Revit Architecture
- · Creating a Walkthrough

# Using Advanced Features I

- Creating Structural Components
- Using Area Analysis Tools

#### **Using Advanced Features II**

- · Worksharing Concepts
- Working with Linked Models
- · Project Standards and Browsers
- Revit Architecture Interoperability

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# Autodesk Revit Families

**Autodesk Revit Families The Complete Guide** is designed to give you a thorough introduction to Revit Families, from basic 2D Symbols to complex 3D Nested Families. By using predefined families and creating new ones in Revit, you can add both standard and custom elements to your building models. Families also provide a level of control over elements that are similar in use and behavior, allowing you to easily make design changes and manage your projects more efficiently.

For example, the structural members, walls, roofs, windows, and doors that you use to assemble a building model, as well as the callouts, fixtures, tags, and detail components that you use to document it, are all created with families.

# User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

# **Course Outline**

- New For 2019
- · What is a Revit Family?
- · An Introduction to Family Templates
- The 2D Menu Ribbon
- The 3D Menu Ribbon
- Reference Planes
- Dimensions and Labels (Parameters)
- · Family Element Commands
- More Advanced Options
- · Managing Revit Families
- · Bonus Exercises

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# Autodesk Revit MEP

**Autodesk Revit MEP The Complete Guide** is designed to give you a solid understanding of Revit MEP features and capabilities, from navigating the interface to the more advanced subjects. This course covers the Getting Started with an MEP Project; Spacing, Zones, and Cooling and Heating Load; Creating Construction Documents, and Creating Families and Worksharing.

Autodesk Revit MEP has been created for engineers, designers, architects and CADD technicians; allowing them to design, document, and analyze building information for mechanical, electrical, and plumbing disciplines. This version brings new and exciting features, like Fabrication Modeling.

# User's prerequisites

You don't need any previous experience with Autodesk® Revit MEP to take this course.

#### **Course Outline**

#### **New for Revit Structure 2019**

• Revit Multi-Disciplinary Improvement

#### Introduction to Autodesk Revit MEP

- Introducing the Autodesk Revit MEP User Interface
- Understanding the Interface, Getting Help

#### **Getting Started with an MEP Project**

- · Starting a New Project in Revit MEP
- Linking Revit Models and Sharing Coordinates
- The Snaps Tool, The Options Dialog Box

#### From Datums to Building Envelopes

- Working with Levels
- Working with Grids
- Working with Reference and Work Planes
- · Working with Views
- Understanding Wall Types
- · Windows and Doors Types
- · Working with Walls, Floors, and Ceilings, Adding Rooms

#### Spacing, Zones, and Cooling and Heating Load Creating Spaces

· Color Schemes, Working with Zones

#### **Creating a Mechanical System**

- Understanding HVAC Systems
- Generating HVAC System Layouts

C

#### reating an Electrical System

- Understanding Electrical Systems
- · Adding Power and System Devices

# Creating a Plumbing System

- Understanding Plumbing Systems
- · Working with Plumbing Systems

# **Creating Fire a Protection System**

- Understanding Fire Protection Systems
- · Designing the Fire Protection System

#### **Creating Construction Documents**

- Dimensioning
- · Modifying Dimensions, Tags
- Creating Detail Views, Adding Sheets

#### **Creating Families and Worksharing**

- Understanding Massing Concepts
- Editing a Massing Geometry
- · Creating Masses in the Conceptual Design Environment
- · Worksharing Concepts

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# **Autodesk Revit Structure**

**Autodesk Revit Structure The Complete Guide** is designed to give you a solid understanding of Revit Structure, its features, and capabilities, from the basics through to the most advanced and complex topics. This course covers Setting the Structural Project, Editing Tools, Standard Views, Details and Schedules, and 3D views.

Autodesk Revit allows professionals to create detailed reinforcement designs, connect steel design and detailing workflows. It is software for architectural design, MEP, and structural engineering, and a solution for collaborative BIM; its powerful tools let you use the intelligent model-based process to plan, design, construct, and manage buildings and infrastructure.

# User's prerequisites

You don't need any previous experience with Autodesk® Revit Structure to take this course.

#### **Course Outline**

#### **New for Revit Structure 2019**

• Revit Multi-Disciplinary Improvements

#### **Introduction to Revit Structure**

- User Interface
- Project Browser

#### **Getting Started**

- Starting a New Architectural Project
- Settings

# Setting up a Structural Project

- · Setting the Project
- Levels and Grids

#### **Structural Columns and Walls**

- Structural Columns
- Walls

# From Foundations to Open Web Joists

- · Understanding Foundations
- Floors
- Beams

# **Editing Tools**

- Selection
- · Moving and Copying
- · Other Editing Tools

## **Documenting Models and Creating Families**

- Dimensioning
- · Adding, Tagging and Annotating

#### Standard Views, Details, and Schedules

- Standard Views
- Schedules

#### From 3D Views to Massing

- 3D Views
- Sheets
- Analysis
- · Reinforcements
- Massing

## **Linking Revit Model with Robot Structural Analysis**

· Links and previewing

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# Autodesk Revit Structure Advanced

**Autodesk Revit Structure Advanced The Complete Guide** is designed to give you a solid understanding of Revit Structure and its advanced features. It emphasizes family concepts and techniques, foundation modeling, reinforcements, and structural column families. Also, the course covers the various stages involved in structural analysis and project collaboration.

Autodesk Revit Structure provides tools specific to structural design for buildings and infrastructure projects. This course is specially meant for professionals and students in structural engineering, civil engineering and allied fields in the building industry; it helps them improve multidiscipline coordination of structural design documentation by minimizing errors and enhancing project team collaboration.

# User's prerequisites

You don't need any previous experience with Autodesk® Revit Structure to take this course.

#### **Course Outline**

#### New for 2019

• Revit Multi-Disciplinary Improvements

#### **Setting Up the Revit Structure Interface**

- · Revit Structure Interface
- · Setting up Revit Structure File Locations

#### **Family Concepts and Techniques**

- Family Types
- Adding to the Family

# **Creating Custom Families**

- · Creating a Composite Metal Deck Family
- Creating a Tapered Concrete Column Family

# **Creating Trusses**

- Truss Techniques and Concepts
- · Finishing the Truss Family

# **Using Trusses in Projects**

- Adding a Truss to a Project
- Attaching a Truss to a Roof or Slab

# **Creating Structural Walls and Floors**

- Architectural Walls and Structural Walls
- Structural Floor Placement and Options
- Using Structural Beam Systems

#### **Creating Foundations**

- · Isolated and Wall Foundations
- · Slab and Floor Slab Foundations

#### Reinforcement

- · Rebar and Fabric Settings
- · Reinforcement Settings

#### **Structural Column Families**

- · Setting Up a Structural Column Family
- · Finishing Off the Family Geometry

# **Creating Specific Family Types**

- Typical Concrete Corbelling Profile
- Typical Annotation Arrow Symbol

# **Structural Analysis**

- Preparing Projects for Structural Analysis
- · Creating Analytical Views

#### **Project Team Collaboration**

- · Introduction to Worksets
- · Working with Worksets

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# **Autodesk Vault Basics**

**Autodesk Vault** is a data management tool integrated with a number of Autodesk software products including AutoCAD and Revit and Inventor. It helps design teams track work in progress and maintain version control in multi-user environments. It allows them to organize and reuse designs by consolidating product information and reducing the need to re-create designs from scratch. Vault Workgroup allows you to scale up to multi-site installations and wider scale system integration.

# User's prerequisites

You don't need any previous experience with Autodesk® Vault to take this course.

#### **Course Outline**

#### New For Vault 2019

- · About this Course
- · About this Course

#### **Vault Basic**

- · Vault Enhancements
- Inventor Add-in Improvements

#### **Vault Workgroup & Vault Professional**

- · Visualization
- · Client Enhancements
- CAD Integration Enhancements

#### **Administration Changes**

- · Administrative Changes
- · PDF Settings

#### **Using Autodesk Vault**

- Introduction to Autodesk Vault
- Working with Files
- · Working with Microsoft Office
- · Working with Microsoft Office

#### Working with AutoCAD

· Working with AutoCAD

## **Working with Inventor**

- · Working with Inventor
- Other

# **Working with Files**

- · Data Management
- · Data Management (Part 2)

#### Vault Administration

- Vault Administration
- · Vault Administration (Part 2

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Autodesk Vault Professional

**Autodesk Vault** is a data management tool integrated with a number of Autodesk software products including AutoCAD and Revit and Inventor. It helps design teams track work in progress and maintain version control in multi-user environments. It allows them to organize and reuse designs by consolidating product information and reducing the need to re-create designs from scratch. Vault Workgroup allows you to scale up to multi-site installations and wider scale system integration.

# User's prerequisites

You don't need any previous experience with Autodesk® Vault to take this course.

# **Course Outline**

#### New For Vault 2019

#### **About this Course**

· About this Course

#### **Vault Basic**

- Vault Enhancements
- Inventor Add-in Improvements

# **Vault Workgroup & Vault Professional**

- Visualization
- · Client Enhancements
- · CAD Integration Enhancements

#### **Administration Changes**

- · Administrative Changes
- PDF Settings

#### **Using Autodesk Vault**

· Introduction to Autodesk Vault

# **Working with Files**

- · Working with Microsoft Office
- Working with Microsoft Office

#### Working with AutoCAD

· Working with AutoCAD

#### **Working with Inventor**

- · Working with Inventor
- · Other

# **Working with Files**

- · Data Management
- Data Management (Part 2)

#### **Vault Administration**

- · Vault Administration
- · Vault Administration (Part 2)

#### **Behaviours**

- · Vault Behaviors
- · Working with Behaviors

# **Behaviour Administration**

- Configuring Behaviors
- More Behavior Options

#### Reports

Reporting

# **Custom Objects**

• Working with Custom Objects

#### Items

- The Item Master
- Files and Items
- · Bills of Materials

#### **Item Behaviours**

- · Item Lifecycles
- · Item Administration

# **Change Orders**

· Vault Change Orders

# **Sharing with Others**

- · Vault Web Client
- · Autodesk Buzzsaw

EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Autodesk Vault Workgroup

**Autodesk Vault** is a data management tool integrated with a number of Autodesk software products including AutoCAD and Revit and Inventor. It helps design teams track work in progress and maintain version control in multi-user environments. It allows them to organize and reuse designs by consolidating product information and reducing the need to re-create designs from scratch. Vault Workgroup allows you to scale up to multi-site installations and wider scale system integration.

# User's prerequisites

You don't need any previous experience with Autodesk® Vault to take this course.

#### **Course Outline**

New For Vault 2019

#### **About this Course**

· About this Course

#### **Vault Basic**

- · Vault Enhancements
- · Inventor Add-in Improvements

# Vault Workgroup & Vault Professional

- Visualization
- · Client Enhancements
- · CAD Integration Enhancements

# **Administration Changes**

- · Administrative Changes
- PDF Settings

#### **Using Autodesk Vault**

• Introduction to Autodesk Vault

#### **Working with Files**

- · Working with Microsoft Office
- · Working with Microsoft Office

# Working with AutoCAD

· Working with AutoCAD

#### Working with Inventor

- · Working with Inventor
- Other

#### **Working with Files**

- Data Management
- Data Management (Part 2)

#### **Vault Administration**

- Vault Administration
- Vault Administration (Part 2)

#### **Behaviours**

- · Vault Behaviors
- · Working with Behaviors

#### **Behaviour Administration**

- · Configuring Behaviors
- More Behavior Options

#### Reports

Reporting

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# New for 3D Max

**Autodesk 3ds Max** 3D modeling and rendering software helps users create massive worlds in games, stunning scenes for design visualization, and engaging virtual reality experiences. ntor. Data Management has always been a big part of his professional life, for the most part with Autodesk Vault.

# User's prerequisites

You don't need any previous experience with Autodesk® 3D Max to take this course.

#### **Course Outline**

# **Material and Maps**

- · New Map Applications
- Advanced Wood Map
- OSL Maps

# **New Shape Tools**

- · Creating Shapes
- Shape Booleans
- · File Management
- Project StructureProject Tools

# **Render Setup**

- · Arnold Renderer
- Arnold Update

#### **Publishing Content**

- View and Share Designs
- · Shared Views

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# New for AutoCAD

**Autodesk AutoCAD** is a powerful CAD software helping professionals create 2D drawings faster and with more precision. Its simplified 2D drafting allows teams to work more efficiently by sharing drawings across connected desktop, cloud, and mobile solutions.

# User's prerequisites

You don't need any previous experience with AutoCAD® to take this course.

# **Course Outline**

#### **General Updates**

- · Refreshed Icons
- Performance Enhancements
- · Object Selection Updates

# **Drawing Compare**

- Starting the Comparison
- Viewing the Results

#### **Layer Enhancements**

- · Layer Enhancements
- · Layer Properties Manager
- Layer Settings
- Xref Layers

# **Shared Views**

- · What are Shared Views?
- Creating a Shared View

• Shared Views Palette

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# New for Inventor

Autodesk Inventor 3D CAD software offers professional-grade 3D mechanical design, documentation, and product simulation tools.

# User's prerequisites

You don't need any previous experience with Autodesk® Inventor to take this course.

# **Course Outline**

#### **Performance Improvements**

- iLogic Enhancements (Autocomplete)
- iLogic Enhancements (Event Trigger Dialog)

# **iLogic Enhancements**

- · Improved Color Scheme Editor
- · Collaboration and Storing Data in the Cloud
- · Autodesk Drive
- · Shared Views
- · Creating a Shared View
- · Shared Views Browser

#### **AnyCAD Enhancements**

- AnyCAD Enhancements (Fusion 360)
- AnyCAD Enhancements (DWG)
- Model-Based Definition Updates
- 3D Annotation for Assemblies
- · Sketching Improvements
- · Hatch Creation Enhancement
- Bill of Material Thumbnails
- Ground and Root Enhancement
- · Improvements in Measuring

#### **Part Updates**

- · Learning Objectives and Outcomes
- Updated Hole Command
- 3D Sketching Improvements
- Image Property Enhancements
- · Model-Based Definition Enhancements

# **Direct Edit Updates**

- Sheet Metal Updates
- · Inverted Fillets

#### **Assembly Enhancements**

- · Express Mode Updates
- · Assembly Constraint Enhancements
- · Lock Hose Length
- · Frame Generator CUTDETAIL Enhancement

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# New for Revit

**New for Revit** is designed to give you a solid understanding of new and enhanced features that will enable you to create consistent, coordinated, and complete modeling for multidiscipline design.

Autodesk Revit is software for architectural design, MEP, and structural engineering, and a solution for collaborative BIM; its powerful tools let you use the intelligent model-based process to plan, design, construct, and manage buildings and infrastructure.

# User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

# **Course Outline**

#### **Core Product Enhancements**

- · Organizing Views
- Fill Patterns
- · Levels in 3D Views
- Rule-Based Filters
- · Steel Fabrication Elements with Weldments

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# AutoCAD 2D Drafting and Annotation 2018

**AutoCAD 2D Drafting and Annotation 2018 The Complete Guide** is designed to give you a solid understanding of AutoCAD features and capabilities. This course covers Starting with Sketching, Layers, Dimension Styles, Dynamic Blocks and A360.Autodesk AutoCAD 2018 is a powerful CAD software helping professionals create 2D drawings faster and with more precision. Its simplified 2D drafting allows teams work more efficiently by sharing drawings across connected desktop, cloud, and mobile solutions.

### **About the Author - Mike Thomas**

Mike spent the first 12-years of his career in the Autodesk channel working for an Autodesk reseller as an Application Specialist. During his travels, he delivered countless hours of training, support, demos, and implementations. He was very fortunate to be able to help solve many issues with Autodesk software. Mike has been using AutoCAD since r13, cut his solid modeling teeth on Mechanical Desktop, and has been using Inventor since before it was known as Inventor. Data Management has always been a big part of his professional life, for the most part with Autodesk Vault.

## User's prerequisites

You don't need any previous experience with AutoCAD® to take this course.

## **Course Outline**

#### New for AutoCAD 2018

- Performance and Security Updates
- User Interaction ChangesDocument Improvements

#### Introduction to AutoCAD

- · Introduction to AutoCAD
- · Getting Started with AutoCAD

#### Starting with Sketching

- · Drawing Lines
- Creating Other 2D Objects
- · AutoCAD Polylines
- · Adding Points

## **Working with Drawing Aids**

- Drawing Aids
- · More Drawing Aids

## **Editing Sketched Objects**

- Editing Sketched Objects
- · Duplicating Objects
- Separating and Joining Sketched Objects
- · More Editing Tools

#### Layers

- · Working with Layers
- Layer Tools

#### Editing Sketched Objects II

- Object Properties
- · Utilizing Grips

#### **Creating Text and Tables**

- · Annotative Objects
- Creating Text
- · Using Tables
- More Text Tools

### **Dimensioning and Detailing Your Drawings**

- · Dimensioning
- · More Dimensioning
- Working with True Associative DimensionsAdding Leaders

## **Editing Dimensions**

- Editing Dimensions Using Editing Tools
- · Editing Dimensions Part 2

#### **Dimension Styles**

- · Dimension Styles
- Using Dimension Styles

#### **Adding Constraints to Sketches**

- · Constraints in a Sketch
- Dimensions, Parameters, and Equations

#### **Hatching Drawings**

- Hatching Basics
- Modifying Hatch Properties

## Paper Space

- · Paper Space Layouts
- Adding Viewports
- · Working with Viewports
- Layout Tools

# **Plotting Drawings**

- · Plotting Draiwngs In AutoCAD
- Plot Styles and Page Setups
- · Publishing to other File Types

### **Template Drawings**

- Templates
- · Customizing Templates

#### **Working with Blocks**

- · Working with Blocks
- Inserting Blocks

### **Changing Blocks**

- · Dynamic Blocks
- Building Dynamic Blocks

#### **AutoCAD Sheet Sets**

- · An Introduction to Sheet Sets
- · Build a Sheet Set
- · Sheet Set Views

## AutoCAD and A360

AutoCAD in the Cloud

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# AutoCAD 3D 2018

**AutoCAD 3D 2018 The Complete Guide** is designed to give you a solid understanding of AutoCAD features and capabilities. This course covers Getting Started with 3D, Views of 3D Models, Creating Surface Models, Creating Meshes, and Cameras and Creating the Animation.

Autodesk AutoCAD is a powerful CAD software helping professionals create 3D models faster and with more precision. Its simplified 3D modeling allows teams work more efficiently by sharing models across connected desktop, cloud, and mobile solutions.

# User's prerequisites

You don't need any previous experience with AutoCAD® to take this course.

## **Course Outline**

## New for AutoCAD 2018

- Performance and Security Updates
- User Interaction Changes
- · Document Improvements

## **AutoCAD 3D Modeling**

- · Getting Started with 3D
- · The User Coordinate System
- · AutoCAD Commands for 3D

## **Creating Solid Models**

- · Creating Solids
- More Tools for Building Solid Models

## **Editing 3D Objects**

- · Editing 3D Objects
- More Tools

## **Creating Views**

- · Views of 3D Models
- · Drawing Views
- Additional Tools

### Surface Modeling

- Creating Surface Models
- · Modifying Surfaces

## **Mesh Modeling**

- · Creating Meshes
- · Working with Meshes

## **Rendering and Animating Designs**

- Materials
- · Working with Lights
- Cameras and Creating the Animation

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# AutoCAD Civil 3D 2018

AutoCAD Civil 3D 2018 The Complete Guide is designed to give you a solid understanding of of Civil 3D, its features and capabilities, from the basics through to the most advanced and complex topics. This course covers Working with points, Alignments, Pipe Networks, and Pressure Networks.

AutoCAD Civil 3D is an engineering software used by civil engineers and other professionals to plan, design, and manage civil engineering projects. Using AutoCAD Civil 3D, infrastructure professionals can better understand project performance, maintain more consistent data and processes, and respond faster to change.

# User's prerequisites

You don't need any previous experience with Autodesk® Civil 3D to take this course.

### **Course Outline**

### New for Civil 3D 2018

New 2018 Features Overview

### **Working with Points**

- · Working with Points
- · Editing Point
- · Exporting and Importing Points

## **Feature Lines and Grading**

- Feature Lines
- Grading

## **Working with Surfaces**

- · Working with Surfaces
- · Adding to Surfaces
- · Editing Surfaces
- Exporting & Sharing Surfaces

## **Surface Volumes and Analysis**

- · Exporting & Sharing Surfaces
- Surface Labels and Tables

## Alignments

- · Creating Alignments
- · Alignment Labeling

## **Working with Profiles**

- · Working with Profiles
- · Editing Profiles
- · Profile Labels

## **Working with Assemblies and Subassemblies**

- · Working with Assemblies and Subassemblies
- · Subassemblies

## **Working with Corridors**

- · Creating Corridors
- · Corridor Attributes
- · Corridors Editing
- · Corridor Analysis

#### Parcels

Parcels

# Sample Lines, Sections, and Quantity Takeoffs

- · Sample Lines
- Section Views
- · Section View Edits & Analysis

# **Pipe Networks**

- · Pipes and Structures
- Part Catalog
- Pipe Network
- Pipe & Structure Labeling

### **Pressure Networks**

- · Pressure Networks
- · Pressure Network Properties
- Pressure Network Labeling

## **Working with Plan Production Tools and Data Shortcuts**

- Working with Plan Production Tools and Data Shortcuts
- · Data Shortcuts



# AutoCAD LT 2018

**AutoCAD LT 2018 The Complete Guide** is designed to give you a solid understanding of AutoCAD LT, its features and capabilities. This course covers Starting with Sketching, Layers, Dimension Styles, Plotting Drawings and A360.

Autodesk AutoCAD is a powerful CAD software helping professionals create 2D drawings faster and with more precision. Its simplified 2D drafting allows teams work more efficiently by sharing drawings across connected desktop, cloud, and mobile solutions.

## User's prerequisites

You don't need any previous experience with AutoCAD® LT to take this course.

### **Course Outline**

### New for AutoCAD 2018

- · Performance and Security Updates
- User Interaction Changes Document Improvements

#### Introduction to AutoCAD

- Introduction to AutoCAD
- Getting Started with AutoCAD

### **Starting with Sketching**

- · Drawing Lines
- Creating Other 2D Objects
- AutoCAD Polylines
- Adding Points

### **Working with Drawing Aids**

- Drawing Aids
- · More Drawing Aids

## **Editing Sketched Objects**

- · Editing Sketched Objects
- · Duplicating Objects
- · Separating and Joining Sketched Objects
- · More Editing Tools

## Layers

- · Working with Layers
- · Layer Tools

# **Editing Sketched Objects II**

- Object Properties
- Utilizing Grips

## **Creating Text and Tables**

- · Annotative Objects
- Creating Text
- Using Tables
- More Text Tools

### **Dimensioning and Detailing Your Drawings**

- Dimensioning
- · More Dimensioning
- · Working with True Associative Dimensions
- Adding Leaders

#### **Editing Dimensions**

- Editing Dimensions I
- Editing Dimensions II

#### **Dimension Styles**

- · Dimension Styles
- Using Dimension Styles

#### **Hatching Drawings**

- Hatching Basics
- · Modifying Hatch Properties

## Paper Space

- Paper Space Layouts
- Adding Viewports
- · Working with Viewports

# **Plotting Drawings**

- · Plotting Drawings In AutoCAD
- · Plot Styles and Page Setups
- · Publishing to other File Types
- · Layout Tools

### **Template Drawings**

- Templates
- Customizing Templates

### **Working with Blocks**

- · Working with Blocks
- · Inserting Blocks
- · Changing Blocks

#### AutoCAD and A360

AutoCAD in the Cloud

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# Autodesk 3ds Max 2018

**Autodesk 3ds Max 2018 The Complete Guide** is designed to give you a solid understanding of 3ds Max features and capabilities from the basics through to the most advanced topics. This course covers Object Selection, Materials and Maps, Animation Basics, and Particle Flow.

3ds Max is a complete 3D computer graphics program that helps professionals and artists create 3D animations, astounding environments, models, games, images, and everything in between. The course was created by 3ds Max Expert **David Hobson** - Davis is a 3ds Max Certified Professional and an Autodesk Certified Instructor. He is also an Accredited Member of the Institute of Videography.

## User's prerequisites

You don't need any previous experience with Autodesk® 3ds Max® to take this course.

#### **Course Outline**

## New for 3ds Max 2018

- · Working with 3ds MaxRendering with Arnold
- Animation

#### Introduction to 3ds Max

- Introduction
- Drawing Tools
- · Units & Help

### **Object Selection**

- · Selection Tools
- Explorer Tools

## 3d Objects

- · Standard Primitives
- · Extended Primitives

## **Working with Architectural Objects**

- · Architectural Objects
- Doors
- Windows
- Stairs

## 2D Shapes

- Splines
- · Extended Splines

# **Modifying 2D Shapes**

- Modifying Splines
- SelectionsGeometry Rollout

## Materials and Maps

- · Rendering Images
- · Material Tools
- · Material Properties
- Other Materials
- Maps

## **3D Mesh Objects**

- Modifying 3D Mesh Objects
- · Edit Geometry Rollout
- Editable Poly Objects
- · Editable Poly Rollouts

## **Graphite Modeling Technique**

- · Polygon Modeling Panel
- · Edit Panel
- · Geometry Panel
- · Modify Selection Panel
- · Loops Panel

## **NURBS Modeling**

- · Curves and Surfaces
- NURBS Parameter Rollout

# **Compound Objects**

· Compound Objects

## Modifiers

- · Mesh Modifiers
- · Geometry Modifiers
- Material and Map Modifiers

#### **Lights and Cameras**

- Lights
- Cameras

#### **Animation Basics**

- Animation Controls
- · Rendering an Animation

## Systems, Hierarchy, and Kinematics

- · Ring Array Systems
- Lighting Systems
- Hierarchies
- Bone Systems

## **Rigid Body Dynamics and Helpers**

- Body Dynamics
- Constraints
- Controls and Tools
- Helpers

## **Particle Flow**

PF Source

## **Particle Systems and Space Particle**

- Systems
- · Particle Mesh
- Space Warps
- Deflector Space WarpsExtended Space Warps

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Autodesk Advanced Steel Essentials 2018

Advance Steel detailing software is built on the AutoCAD platform. Structural engineering professionals use the software to help accelerate design, steel detailing, steel fabrication, and steel construction. The **Advance Steel Essentials 2018** course provides an overview of the user interface, an introduction to the methodology and workflow in Advance Steel, and best practices for working with files.

This course was created in collaboration with our client **lan Coats** - Technical Specialist (Structural Fabrication) at Autodesk.

# User's prerequisites

You don't need any previous experience with Autodesk® Advance Steel to take this course.

## **Course Outline**

#### **Introduction to Advance Steel Basic**

- · Introduction to Advance Steel Basic
- System Requirements and License

## **Setting Up The Model**

· Setting Up The Model

### **Basic Modeling**

· Basic Modeling

## Simple Editing

· Simple Editing

### **Plate Features**

- · Plate Features
- Contour Plates
- Folded Plates

#### **Basic Connections**

· Basic Connections

#### Miscellaneous Steel

· Miscellaneous Steel

### **Other Model Objects**

· Other Model Objects

## **Checking A Model Structure**

· Checking a Model Structure

#### **Model and Sheet Information Management**

- Creating Drawings
- · Annotating Drawings
- · Manipulating Drawings
- · Updating Drawings

## **Lists and Bills of Materials**

· Lists and Bills of Materials

#### Collaboration

Collaboration

### **Appendix**

- Starting in Revit
- · Drawing Prototypes

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Autodesk Inventor 2018

**Autodesk Inventor 2018 The Complete Guide** is designed to give you a solid understanding of Inventor features and capabilities, from the basics through to the most advanced and complex topics. This course covers Sketching, Adding Part Features, Creating the Drawing, Presentations, and Weldments.

Autodesk Inventor is a 3D parametric modeling system, offering professional-grade 3D mechanical design, documentation, and product simulation tools. With Inventor, you can create 3D digital prototypes and then use them to create drawings, visualizations, and simulations. This course has been created by Star GeT Contractor, AUGI Member and noted AU speaker **Mike Thomas**.

## User's prerequisites

You don't need any previous experience with Autodesk® Inventor to take this course.

### **Course Outline**

## **New for Inventor 2018**

- Productivity and Performance Enhancements
- Part Modeling
- Detailing, Interoperability, and Collaboration

### **Introduction to Autodesk Inventor**

- · Welcome to Autodesk Inventor
- · Getting Started with Inventor

### Sketching

- · Sketching with Inventor
- · More Sketching Features

### **Constraints and Dimensions**

- · Adding Parametric Constraints
- · Utilizing Parametric Dimensions

## **Sketch Tools**

- · Sketching Tools
- Patterning
- 3D Sketching

## **Building the 3D Model**

- Sketched Features
- More Part Tools
- Work FeaturesParameters

## **Adding Part Features**

- · Placed Features
- · More Features
- · Freeform Modeling

### **Building More Advanced Parts**

- · Sweeps and Lofts
- · More Part Features
- Surfacing Tools

## **Assembly Modeling**

- · Assembling Components
- More Constraint Options
- · More Assembly Tools

# **More Assembly Modeling**

- · Working with Components
- · Duplicating Components
- Representations

## **Creating the Drawing**

- Generating Views
- · Working with Drawing Views

## **Detailing and Annotation**

- Dimensioning
- Parts List, Balloons, and Text

#### **Presentations**

- Creating Presentations
- · Sharing the Information

### **Sheet Metal**

- · Using the Sheet Metal Module
- More Sheet Metal Features

#### Weldments

- · Weldments
- Working with Weldments

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Autodesk Nastran In-CAD 2018

**Autodesk Moldflow Nastran In-CAD 2018 The Complete Guide** is designed to give a thorough introduction to Nastran In-CAD, from the Analysis Setup to Performing the Analysis; it also covers more analysis types, like Thermal Stress and Transient Analysis. This course includes video demonstrations, quizzes and practical Let Me Try exercises, and accommodates all learning styles.

Autodesk Nastran In-CAD software is a general-purpose finite element analysis (FEA) tool for engineers and analysts, offers a range of simulations powered by the Autodesk Nastran solver and helps professionals solve engineering challenges directly in their CAD application.

# User's prerequisites

You don't need any previous experience with Autodesk® Nastran In-CAD to take this course.

## **Course Outline**

### Introduction to Autodesk Nastran In-CAD

- · Getting Started with Autodesk Nastran In-CAD
- Creating a New Analysis

## **Analysis Preparation**

- · Analysis Setup
- Idealization
- Model Preparation
- Materials

## **Analysis Setup**

- · Applying Constraints
- Loads
- · Loads II
- · Thermal Loads

## **Boundary Conditions**

- · Boundary Conditions
- Contact

### Meshing

- · Generating the Mesh
- · Mesh Options

### **Performing the Analysis**

- Running the Analysis
- More Analysis Types

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Autodesk Navisworks Manage 2018

**Autodesk Navisworks Manage 2018 The Complete Guide** is designed to give you a solid understanding of Autodesk Navisworks Manage features and capabilities from the basics to the more advanced topics. This course covers the Navisworks User Interface, BIM 360 Tools, Viewpoints, Quantification, Class detection and The rendering window.

Autodesk Navisworks is a software designed to provide an environment to coordinate project information in a neutral location. The intention is to ensure that all parties share their project information and link it to the Navisworks environment for better coordination and control of the project

## User's prerequisites

You don't need any previous experience with Autodesk® Navisworks to take this course.

## **Course Outline**

#### **New for Navisworks**

- · Overview of New Features
- Integration with Autodesk Products
- Navisworks Integration with BIM360 Glue

#### Introduction to Autodesk Navisworks

- The User Interface
- BIM 360 Tools

## Selecting, Controlling, and Reviewing Objects

- · Selecting Objects
- Controlling and Reviewing

#### Viewpoints, Sections, and Animations

- · Viewpoints
- Sections
- Animations

#### TimeLiner

· Working with the Timeliner

### **Working with Animator and Scripter**

- · The Animator Window
- · The Scripter Window

#### Quantification

Quantification

#### **Clash Detection**

- · Clash Detective Workflow
- Managing Clash Tests

#### **Autodesk Rendering**

The Rendering Window

## **About the Author**

Rebecca has always had a keen interest in digital technologies and how they can radically change the way we work and interact with one another. Having studied and worked in Australia as an Architect the basis for her experience always involved managing and training teams to utilize this technology and interact with those ready and willing for change to enable a more efficient workflow.

Rebecca lived in the UK for almost 10 years and following a series of successful senior roles in varied architectural organizations, Rebecca now manages her own consultancy, Digital Node, providing advice and insight to construction professionals all over the world on advanced digital solutions on projects as well as implementation and management processes. It is with this knowledge that she can communicate, train and manage teams in a BIM environment as well as ensure her knowledge is spread throughout the industry within education and focused groups.

Rebecca works with Building Smart UK, sits on the Autodesk Developer Network and feedback community and supports the London BIM initiative within the BIM Regions that help support and grow an industry. She is also a strong advocate for diversity and young people (having been part of a future focused industry group, BIM2050) and also teaches, mentors and trains young people regarding future processes and BIM. Her interest in training and upskilling also involved a strong social media presence for herself (@becdecicco), her organization (@digital\_node) and finally her diversity group (@womeninBIM).

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Autodesk Navisworks Simulate 2018

**Navisworks Simulate 2018 The Complete Guide** is designed to give you a solid understanding of Navisworks features and capabilities, from the basics to the more advanced topics. This course covers the Navisworks User Interface, BIM 360 Tools, Viewpoints, Quantification, and Rendering.

Autodesk Navisworks is a software designed to provide an environment to coordinate project information in a neutral location. The intention is to ensure that all parties share their project information and link it to the Navisworks environment for better coordination and control of the project.

# User's prerequisites

You don't need any previous experience with Autodesk® Navisworks to take this course.

### **Course Outline**

#### **New for Navisworks**

- · Overview of New Features
- Integration with Autodesk Products
- Navisworks Integration with BIM360 Glue

### **Introduction to Autodesk Navisworks**

- The User Interface
- BIM 360 Tools

## **Navigation Tools**

· Navigation Tools

## Selecting, Controlling, and Reviewing Objects

- · Selecting Objects
- · Controlling and Reviewing

### Viewpoints, Sections, and Animations

- Viewpoints
- Sections
- Animations

#### TimeLiner

· Working with the Timeliner

### **Working with Animator and Scripter**

- · The Animator Window
- The Scripter Window

### Quantification

· Quantification

### **Autodesk Rendering**

· The Rendering Window

## **About the Author**

Rebecca has always had a keen interest in digital technologies and how they can radically change the way we work and interact with one another. Having studied and worked in Australia as an Architect the basis for her experience always involved managing and training teams to utilize this technology and interact with those ready and willing for change to enable a more efficient workflow.

Rebecca lived in the UK for almost 10 years and following a series of successful senior roles in varied architectural organizations, Rebecca now manages her own consultancy, Digital Node, providing advice and insight to construction professionals all over the world on advanced digital solutions on projects as well as implementation and management processes. It is with this knowledge that she can communicate, train and manage teams in a BIM environment as well as ensure her knowledge is spread throughout the industry within education and focused groups.

Rebecca works with Building Smart UK, sits on the Autodesk Developer Network and feedback community and supports the London BIM initiative within the BIM Regions that help support and grow an industry. She is also a strong advocate for diversity and young people (having been part of a future focused industry group, BIM2050) and also teaches, mentors and trains young people regarding future processes and BIM. Her interest in training and upskilling also involved a strong social media presence for herself (@becdecicco), her organization (@digital\_node) and finally her diversity group (@womeninBIM).

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# Autodesk Raster Design 2018

**Autodesk Raster Design 2018 The Complete Guide** is designed to give you a solid understanding of Raster Design features and capabilities, from the basics to the more advanced topics. This course covers Getting Started with Raster Design, Color Maps, Correlating, Rubbing and Cropping, and Using the Vectorization Tools.

Autodesk Raster Design is a toolset for AutoCAD based products, built purposely for working with raster images inserted into AutoCAD drawings.

# User's prerequisites

You don't need any previous experience with Autodesk® Raster Design to take this course.

### **Course Outline**

### **Welcome to Raster Design**

- · Getting Started with Raster Design
- Inserting Images

## **Inserting and Writing**

- · Color Maps
- · Image Manipulation

### Image Correlation 1

- · Raster Design Features
- Correlating

## Image Correction 2

- · Image Touch Up
- · Processing Images
- · Rubbing and Cropping

### **Raster Entity Manipulation**

- · Using REM Features
- · Regions and other REM Tools

#### Raster to Vector

- Using the Vectorization Tools
- Vectorizing Text

## **About the Author**

This course has been created by Star GeT Contractor, AUGI Member and noted AU speaker **Mike Thomas**. Mike is a Mechanical Technologist by trade, and for the past 15+ years has been heavily involved in the world of CAD/CAM engineering design, detailing, and management. For the first part of his career he worked as an Application Specialist for an Autodesk reseller where he delivered thousands of hours of training, support, and implementation services. Today, he is the Technical Services Manager for a mining equipment manufacturer.

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# Autodesk Revit Architecture 2018

**Revit Architecture 2018 The Complete Guide** is designed to give you a solid understanding of Revit Architecture, its features and capabilities, from the basics through to the most advanced and complex topics. This course covers Creating Walls, Adding Site Features, Using Massing Tools, Rendering and Walkthroughs, and Using Advanced Features.

Autodesk Revit allows professionals to optimize building performance and share model data with engineers and contractors. It is software for architectural design, MEP, and structural engineering, and a solution for collaborative BIM; its powerful tools let you use the intelligent model-based process to plan, design, construct, and manage buildings and infrastructure.

# User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

#### **Course Outline**

### **New for Revit Architecture 2018**

- · User Interface
- · Options and Help

### **Introduction to Revit Architecture**

- User Interface
- · Options and Help

## **Starting an Architectural Project**

- · Starting a New Architectural Project
- · Navigation Tools

## **Creating Walls**

- · Creating Architectural Walls
- Creating Architectural Walls II

## **Using Basic Building Components I**

- Adding Doors
- · Adding Window and Wall Openings

## **Using the Editing Tools**

- · Working with Selection Sets
- · Editing Tools
- · Editing Tools II
- Grouping
- · Retrieving Information about Elements

# **Datum Planes and Creating Standard Views**

- Working with Reference Planes
- Working with Levels
- · Working wit Grids
- · Working with Project Views

## **Using Basic Building Components II**

- · Creating Floors
- Creating Roofs
- · Shape Editing Tools
- Creating Ceilings
- Adding Rooms

# **Using Basic Building Components III**

- · Working with Components
- Adding Stairs
- Adding Railings and Ramps
- Creating Curtain Walls

## **Adding Site Features**

- · Working with Site Features
- · Property Lines and Building Pads
- Adding Site Components

### **Using Massing Tools**

- Understanding Massing Concepts
- Creating Massing Geometry in the Family Editor
- · Creating Families

## **Adding Annotations and Dimensions**

- Adding Tags
- Keynotes

## **Creating Project Details and Schedules**

- Project Detailing
- · Adding Text Notes
- Working with Schedules

## **Creating Drawing Sheets and Plotting**

- Creating Drawing Sheets
- Creating Duplicate Dependent Views

### **Creating 3D Views**

· Three Dimensional Views

### From Rendering to Walkthroughs

- · Working with Materials
- · Rendering in Revit Architecture
- Creating a Walkthrough

# **Using Advanced Features I**

- Creating Structural Components
- Using Area Analysis Tools

## **Using Advanced Features II**

- Worksharing Concepts
- · Working with Linked Models
- Project Standards and Browsers
- · Revit Architecture Interoperability

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# Autodesk Revit MEP 2018

**Revit MEP 2018 The Complete Guide** is designed to give you a solid understanding of Revit MEP features and capabilities, from navigating the interface to the more advanced subjects. This course covers the Getting Started with an MEP Project, Spacing, Zones, and Cooling and Heating Load, Creating Construction Documents, and Creating Families and Worksharing.

Autodesk Revit MEP has been created for engineers, designers, architects and CADD technicians; allowing them to design, document, and analyze building information for mechanical, electrical, and plumbing disciplines. This version brings new and exciting features, like Fabrication Modeling.

# User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

#### **Course Outline**

## New For Revit - Multidiscipline

- · User Interface and Workflow
- · Text Enhancements
- Schedules

#### **New For Revit MEP 2018**

- · Fabrication Modeling
- Other MEP Improvements

### **Introduction to Autodesk Revit MEP 2018**

- Introducing the Autodesk Revit MEP User Interface
- · Understanding the Interface, Getting Help

## **Getting Started with an MEP Project**

- · Starting a New Project in Revit MEP
- Linking Revit Models and Sharing Coordinates
- The Snaps Tool, The Options Dialog Box

## From Datums to Building Envelopes

- · Working with Levels
- · Working with Grids
- · Working with Reference and Work Planes
- Working with Views
- Understanding Wall Types
- Windows and Doors Types
- · Working with Walls, Floors and Ceilings, Adding Rooms

#### Spacing, Zones, and Cooling and Heating Load

- Creating Spaces
- Color Schemes, Working with Zones

## **Creating a Mechanical System**

- · Understanding HVAC Systems
- Generating HVAC System Layouts

## **Creating a Electrical System**

- · Understanding Electrical Systems
- Adding Power and System Devices

## **Creating a Plumbing System**

- Understanding Plumbing Systems
- · Working with Plumbing Systems

## **Creating Fire a Protection System**

- Understanding Fire Protection Systems
- · Designing the Fire Protection System

## **Creating Construction Documents**

- Dimensioning
- Modifying Dimensions, Tags
- Creating Detail Views, Adding Sheets

#### **Creating Families and Worksharing**

- Understanding Massing Concepts
- Editing a Massing Geometry
- Creating Masses in the Conceptual Design Environment
- · Worksharing Concepts

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# Autodesk Revit Structure 2018

**Autodesk Revit Structure 2018 The Complete Guide** is designed to give you a solid understanding of Revit Structure, its features and capabilities, from the basics through to the most advanced and complex topics. This course covers Setting the Structural Project, Editing Tools, Standard Views, Details and Schedules, and 3D views.

Autodesk Revit allows professionals to create detailed reinforcement designs, connect steel design and detailing workflows. It is software for architectural design, MEP, and

structural engineering, and a solution for collaborative BIM; its powerful tools let you use the intelligent model-based process to plan, design, construct, and manage buildings and infrastructure. This course has been created by Revit Expert Daryl Gregoire. Daryl has over 30 years of experience in providing Professional Design and Drafting Services for New Residential Construction and Renovations.

# User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

## **Course Outline**

## **New for Revit Structure 2018**

- Core Improvements
- · Structure Additions

### **Introduction to Revit Structure**

- User Interface
- · Project Browser

### **Getting Started**

- · Starting a New Architectural Project
- Settings

## Setting up a Structural Project

- Setting the Project
- · Levels and Grids

# Structural Columns and Walls

- Structural Columns
- Walls

### From Foundations to Open Web Joists

- Understanding Foundations
- Floors
- Beams

### **Editing Tools**

- Selection
- · Moving and Copying
- Other Editing Tools

### **Documenting Models and Creating Families**

- Dimensioning
- · Adding, Tagging and Annotating

## Standard Views, Details and Schedules

- Standard Views
- Schedules

### From 3D Views to Massing

- 3D Views
- Sheets
- Analysis
- Reinforcements
- Massing

### **Linking Revit Model with Robot Structural Analysis**

· Links and previewing

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# Autodesk Revit Structure Advanced 2018

**Autodesk Revit Structure Advanced 2018 The Complete Guide** is designed to give you a solid understanding of Revit Structure 2018 and its advanced features. It emphasizes on family concepts and techniques, foundation modeling, reinforcements, and structural column families. Also, the course covers the various stages involved in structural analysis and project collaboration.

Autodesk Revit Structure provides tools specific to structural design for buildings and infrastructure projects. This course is specially meant for professionals and students in structural engineering, civil engineering and allied fields in the building industry; it helps them improve multidiscipline coordination of structural design documentation by minimizing errors, and enhancing project team collaboration.

## User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

### **Course Outline**

#### New for 2018

- · Revit Multi-Disciplinary Improvements
- Revit Structure Improvements

#### **Setting Up the Revit Structure Interface**

- · Revit Structure Interface
- Setting up Revit Structure File Locations

## **Family Concepts and Techniques**

- · Family Types
- · Adding to the Family

## **Creating Custom Families**

- · Creating a Composite Metal Deck Family
- · Creating a Tapered Concrete Column Family

## **Creating Trusses**

- Truss Techniques and Concepts
- · Finishing the Truss Family

### **Using Trusses in Projects**

- · Adding a Truss to a Project
- Attaching a Truss to a Roof or Slab

## **Creating Structural Walls and Floors**

- Architectural Walls and Structural Walls
- Structural Floor Placement and Options
- Using Structural Beam Systems

#### **Creating Foundations**

- · Isolated and Wall Foundations
- Slab and Floor Slab Foundations

#### Reinforcement

- · Rebar and Fabric Settings
- · Reinforcement Settings

## **Structural Column Families**

- Setting Up a Structural Column Family
- · Finishing Off the Family Geometry

# **Creating Specific Family Types**

- Typical Concrete Corbelling Profile
- Typical Annotation Arrow Symbol

## **Structural Analysis**

- Preparing Projects for Structural Analysis
- Creating Analytical Views

#### **Project Team Collaboration**

- · Introduction to Worksets
- Working with Worksets

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# Autodesk Vault Basic

Autodesk Vault is a data management tool integrated with a number of Autodesk software products including AutoCAD and Revit and Inventor.

It helps design teams track work in progress and maintain version control in multi-user environments. It allows them to organize and reuse designs by consolidating product information and reducing the need to re-create designs from scratch.

Vault Workgroup allows you to scale up to multi-site installations and wider scale system integration.

# User's prerequisites

You don't need any previous experience with Autodesk® Vault to take this course.

## **Course Outline**

### **New For Vault 2018**

### **About this Course**

· About this Course

#### **Vault Basic**

- · Vault Enhancements
- · Inventor Add-in Improvements

#### **Vault Workgroup & Vault Professional**

- Visualization
- · Client Enhancements
- CAD Integration Enhancements

## Administration Changes

- · Administrative Changes
- · PDF Settings

## **Using Autodesk Vault**

- · Introduction to Autodesk Vault
- · Working with Files

## **Working with Microsoft Office**

· Working with Microsoft Office

## **Working with AutoCAD**

· Working with AutoCAD

## **Working with Inventor**

- · Working with Inventor
- Other

## **Working with Files**

- Data Management
- Data Management (Part 2)

## **Vault Administration**

- · Vault Administration
- · Vault Administration (Part 2)

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# Autodesk Vault Professional

Autodesk Vault is a data management tool integrated with a number of Autodesk software products including AutoCAD and Revit and Inventor.

It helps design teams track work in progress and maintain version control in multi-user environments. It allows them to organize and reuse designs by consolidating product information and reducing the need to re-create designs from scratch.

Vault Professional allows you to integrate advanced functionality and features with business applications.

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# User's prerequisites

You don't need any previous experience with Autodesk® Vault to take this course.

## **Course Outline**

#### New For Vault 2018

## **About this Course**

· About this Course

#### **Vault Basic**

- Vault Enhancements
- Inventor Add-in Improvements

## **Vault Workgroup & Vault Professional**

- Visualization
- · Client Enhancements
- · CAD Integration Enhancements

# **Administration Changes**

- · Administrative Changes
- · PDF Settings

# **Using Autodesk Vault**

- · Introduction to Autodesk Vault
- · Working with Files

## **Working with Microsoft Office**

· Working with Microsoft Office

## **Working with AutoCAD**

· Working with AutoCAD

# **Working with Inventor**

- · Working with Inventor
- Other

### **Working with Files**

- · Data Management
- · Data Management (Part 2)

#### **Vault Administration**

- Vault Administration
- · Vault Administration (Part 2)

#### **Behaviours**

- · Vault Behaviors
- · Working with Behaviors

## **Behaviour Administration**

- · Configuring Behaviors
- More Behavior Options

#### Reports

Reporting

## **Custom Objects**

Working with Custom Objects

## Items

- The Item Master
- Files and Items
- · Bills of Materials

#### **Item Behaviours**

- · Item Lifecycles
- Item Administration

### **Change Orders**

· Vault Change Orders

## **Sharing with Others**

- · Vault Web Client
- Autodesk Buzzsaw

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# Autodesk Vault Workgroup

Autodesk Vault is a data management tool integrated with a number of Autodesk software products including AutoCAD and Revit and Inventor.

It helps design teams track work in progress and maintain version control in multi-user environments. It allows them to organize and reuse designs by consolidating product information and reducing the need to re-create designs from scratch.

Vault Workgroup allows you to scale up to multi-site installations and wider scale system integration.

# User's prerequisites

You don't need any previous experience with Autodesk® Vault to take this course.

## **Course Outline**

### **New For Vault 2018**

### **About this Course**

· About this Course

#### **Vault Basic**

- Vault Enhancements
- · Inventor Add-in Improvements

#### **Vault Workgroup & Vault Professional**

- Visualization
- Client Enhancements
- · CAD Integration Enhancements

## **Administration Changes**

- · Administrative Changes
- PDF Settings

## **Using Autodesk Vault**

- · Introduction to Autodesk Vault
- · Working with Files

### **Working with Microsoft Office**

· Working with Microsoft Office

## **Working with AutoCAD**

· Working with AutoCAD

## **Working with Inventor**

- · Working with Inventor
- Other

## **Working with Files**

- Data Management
- · Data Management (Part 2)

#### **Vault Administration**

- Vault Administration
- Vault Administration (Part 2)

## Behaviours

- · Vault Behaviors
- Working with Behaviors

### **Behaviour Administration**

- · Configuring Behaviors
- More Behavior Options

#### Reports

Reporting

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Autodesk Vehicle Tracking 2018

**Autodesk Vehicle Tracking 2018 The Complete Guide** is designed to give you a solid understanding of Vehicle Tracking, its features and capabilities, from the basics to the more advanced topics. This course covers the Initial Configuration, Swept Path Maintenance, Parking Areas, Roundabouts, and More Tools for Vehicle Tracking.

Vehicle Tracking transportation analysis and design software is built for vehicle swept path analysis. Engineers, designers, and planners can evaluate vehicle movements on transportation or site design projects.

## User's prerequisites

You don't need any previous experience with Autodesk® Vehicle Tracking to take this course.

### **Course Outline**

## **Welcome to Autodesk Vehicle Tracking**

- Getting Started
- The Initial Configuration

#### **Swept Paths**

- Driving
- · More Path Options

### **Swept Path Maintenance**

- Editing Swept Paths
- More Tools For Working with Swept Paths

### **Vehicle Libraries**

- · Working with the Library
- · Adding New Vehicles

#### **Parking Areas**

- · Adding Rows
- · Editing Parking Areas

### Roundabouts

- · Adding Roundabouts
- · Roundabout Standards

#### **More Tools**

· More Tools for Vehicle Tracking

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# New for 3ds Max 2018

**New for 3ds Max 2018** is designed to give you a solid understanding of the new and enhanced features of 3ds Max to help you create stunning scenes for design visualization, fantastic worlds in games, and detailed characters. This course covers the File Menu, the Arnold Renderer and Motion Paths.

3ds Max is a complete 3D computer graphics program that helps professionals and artists create 3D animations, astounding environments, models, games, images, and everything in between. The course was created by 3ds Max Expert **David Hobson** - Davis is a 3ds Max Certified Professional and an Autodesk Certified Instructor. He is also an Accredited Member of the Institute of Videography.

# User's prerequisites

You don't need any previous experience with Autodesk® 3ds Max to take this course.

### **Course Outline**

## New for 3ds Max

- · Working with 3ds Max 2018
- · Rendering with Arnold
- Animation

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# New for AutoCAD Civil 3D 2018

**New for AutoCAD Civil 3D 2018** is designed to give you a solid understanding of new and enhanced features of Civil 3D, to create engineering design and documentation that is supported by Building Information Modeling (BIM). This course covers Dynamic offset profiles, Pipe sizing and analysis and Corridor overlap resolution.

AutoCAD Civil 3D is an engineering software used by civil engineers and other professionals to plan, design, and manage civil engineering projects.

## User's prerequisites

You don't need any previous experience with AutoCAD® Civil 3D to take this course.

### **Course Outline**

- Relative Elevations Feature Lines
- Dynamic Offset Profiles
- Connected Alignments
- · Pipe Sizing and Analysis

- Property Data Set Labels
- Traverse Editor
- Corridor Overlap Editor
- Create Sheet Enhancements

## **About the Author - Tony Carcamo**

Corporate CAD Manager at Peloton Land Solutions. He has 20 years of experience in the civil engineering industry and is member of the Autodesk Expert Elite, InfraWorks Customer Council, and the AutoCAD Customer Council. Tony is also President of the DFW BIM Infrastructure User Group for the DFW area and the InfraWorks 360 content manager for AUGIWorld magazine.

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# New for Inventor 2018

With each new version of Inventor, Autodesk provides improvements in both productivity and performance, taking the next step forward in professional-grade 3D mechanical engineering design. Detailing, Collaboration and Interoperability are now essential to ensure information is communicated properly and efficiently.

## User's prerequisites

You don't need any previous experience with Autodesk® Inventor to take this course.

#### **Course Outline**

#### **Productivity and Performance Enhancements**

- General
- Inventor Updates
- · Productivity Updates

#### **Part Modeling**

- Modeling Enhancements
- Model-Based Definition

### **Detailing, Interoperability, and Collaboration**

- · Drawing Updates
- · Interoperability and Collaboration

## **About the Author**

This course has been created by Star GeT Contractor, AUGI Member and noted AU speaker **Mike Thomas**. Mike is a Mechanical Technologist by trade, and for the past 15+ years has been heavily involved in the world of CAD/CAM engineering design, detailing, and management. For the first part of his career he worked as an Application Specialist for an Autodesk reseller where he delivered thousands of hours of training, support, and implementation services. Today, he is the Technical Services Manager for a mining equipment manufacturer.

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# New for Navisworks 2018

**New for Navisworks 2018** is designed to give you a solid understanding of new and enhanced features of Navisworks, a comprehensive project solution that supports coordination, analysis, and constructability. This course covers Integration with Cloud based products, Clash Detection and Interference Checking and BIM 360 Shared Views.

Autodesk Navisworks allows construction and design professionals gain more control over their projects; interference management tools help anticipate and minimize potential problems before construction begins, reducing expensive delays and rework.

## User's prerequisites

You don't need any previous experience with Autodesk® Navisworks to take this course.

### **Course Outline**

#### **New Features for Autodesk Navisworks**

- Overview of New Features Integration with Autodesk Products
- · Navisworks Integration with BIM360 Glue

## About the Author - Rebecca De Cicco

Rebecca has always had a keen interest in digital technologies and how they can radically change the way we work and interact with one another. Having studied and worked in Australia as an Architect the basis for her experience always involved managing and training teams to utilize this technology and interact with those ready and willing for change to enable a more efficient workflow.

Rebecca lived in the UK for almost 10 years and following a series of successful senior roles in varied architectural organizations, Rebecca now manages her own consultancy, Digital Node, providing advice and insight to construction professionals all over the world on advanced digital solutions on projects as well as implementation and management processes. It is with this knowledge that she can communicate, train and manage teams in a BIM environment as well as ensure her knowledge is spread throughout the industry within education and focused groups.

Rebecca works with Building Smart UK, sits on the Autodesk Developer Network and feedback community and supports the London BIM initiative within the BIM Regions that help support and grow an industry. She is also a strong advocate for diversity and young people (having been part of a future focused industry group, BIM2050) and also teaches, mentors and trains young people regarding future processes and BIM. Her interest in training and upskilling also involved a strong social media presence for herself (@becdecicco), her organization (@digital\_node) and finally her diversity group (@womeninBIM).

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# New for Revit 2018

**New for Revit 2018** is designed to give you a solid understanding of new and enhanced features that will enable you to create consistent, coordinated, and complete modeling for multi-discipline design. This course covers Coordination models, Schedule groups and Revit links, Global Parameters and more.

Autodesk Revit is software for architectural design, MEP, and structural engineering, and a solution for collaborative BIM; its powerful tools let you use the intelligent model-based process to plan, design, construct, and manage buildings and infrastructure.

# User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

# **Course Outline**

## **Revit Multi-Discipline**

• Core Improvements

#### **Revit Architecture**

· Architectural Enhancements

#### Revit MEP

- · Fabrication Modeling
- · Other MEP Improvements

## **Revit Structure**

Structure Additions

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# AutoCAD 2D Drafting and Annotation 2017

**AutoCAD 2D Drafting and Annotation 2017 The Complete Guide** is designed to give you a solid understanding of AutoCAD features and capabilities. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning 2D drawing skills, editing entities, working with splines and polylines, using layers, creating and editing text, dimensioning, and creating blocks.

# User's prerequisites

You don't need any previous experience with AutoCAD® to take this course.

### **Course Outline**

### **New For AutoCAD 2017**

• Simplified, Connected, and Innovative

### Introduction to AutoCAD

- · Introducing AutoCAD
- · Using Tools in AutoCAD
- · Working With AutoCAD Files
- Autodesk 360

#### **Getting Started with AutoCAD**

- · Getting Started with AutoCAD
- Coordinate Systems
- · AutoCAD Workspaces
- · AutoCAD File Settings

#### Starting with Sketching

- Starting with Basic Sketching
- · Drawing Irregular Objects
- · Drawing Various Arcs

## Layers

Layers

# **Working with Drawing Aids**

- Object Properties
- · Working With Object Snaps
- Draft Settings Dialog Box
- Using AutoTracking

# **Editing Sketched Objects-1**

- Creating a Selection Set
- Copying and Pasting Sketched Objects
- · Editing Sketched Objects
- Arraying and Mirroring Sketched Objects
- Separating and Joining Sketched Objects

# **Editing Sketched Objects - II**

- · Modifying Grips in AutoCAD
- Properties of Sketched Objects
- DesignCenter and AutoDesk Seek
- Making Inquiries about Objects and Drawings
- Manipulating the View
- Understanding the Concept of Sheet Sets

### **Creating Text and Tables**

- · Annotative Objects
- · Creating Text
- · Creating Multiline Text
- Using Tables
- Text Styles

# Basic Dimensioning, Geometric Dimensioning, and Tolerancing

- · Dimensioning Terms and Tools
- Selecting Dimension Tools
- Creating Specialized Dimensions
- Working with True Associative Dimensions
- · Geometric Dimensioning

## **Editing Dimensions**

- Editing Dimensions Using Editing Tools
- Editing Dimensions Using Editing Tools Continued

# Dimension Styles, Multileader Styles, and System Variables

- Dimension Styles
- · Dimension Style Families
- Dimension Text and Units

## **Adding Constraints to Sketches**

- Constraints in a Sketch
- · Applying and Editing Constraints

### **Hatching Drawings**

- · Hatching Basics
- · Modifying Hatch Properties

# Model Space Viewports, Paper Space Viewports, and Layouts

- · Model Space Viewports
- · Viewport Options

## **Plotting Drawings**

- Plotting Drawings In AutoCAD
- Plot Styles

#### **Template Drawings**

- Understanding Templates
- Customizing Templates

### **Working with Blocks**

- · Working with Blocks
- · Changing Blocks
- · Inserting and Modifying Blocks
- Simplifying Blocks

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# AutoCAD 3D 2017

**AutoCAD 3D 2017 The Complete Guide** is designed to give you a solid understanding of AutoCAD features and capabilities from basic through to advanced and complex 3D modeling components. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples. You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning about the UCS, Solid, Surface and Mesh modelling and editingcomponents.

Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples. You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning about the UCS, Solid, Surface and Mesh modelling and editing

## User's prerequisites

You don't need any previous experience with AutoCAD® to take this course.

### **Course Outline**

### What's New in AutoCAD 2017

• User Interface & Configuration Changes

## The User Coordinate System

- Understanding Coordinate Systems
- Defining the New UCS
- · Managing the UCS Through the Dialog Box

### **Getting Started with 3D**

- Understanding 3D Concepts
- Changing the Viewpoint to View 3D Models
- In-Canvas Viewport Control
- 3D Coordinate Systems
- Tools for Creating and Editing 3D Objects
- Interactive Viewing Tools for 3D Objects

### **Creating Solid Models**

- · Creating Solid Models
- · Modifying the Visual Styles of Solids
- Controlling the Settings of Edges
- Creating Complex Solid Models
- Dynamic UCS
- Creating Different Solids

## Editing 3D Objects-I

- Filleting Solid Models
- Rotating Solid Models in 3D Space
- Mirroring Solid Models in 3D Space
- Aligning Solid Models
- · Point Cloud

## Editing 3D Objects-II

- · Editing 3D Objects-II
- Generating a Section by Defining a Section Plane
- Generating 2D and 3D Sections
- Solid History
- Drawing Views
- · Creating Flatshot

## **Surface Modeling**

- · Understanding Surface Modeling
- Creating Surface by Using Profiles
- Creating Surface from other Surfaces
- Editing Surfaces

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- Editing the NURBS Surfaces
- · Performing Surface Analysis

#### Mesh Modeling

- · Introduction to Mesh Modeling
- Creating Surface Meshes
- · Modifying Mesh Objects
- · Editing Mesh Faces
- · Converting Mesh Objects
- · Working with Gizmos

## **Rendering and Animating Designs**

- · Understanding the Concept of Rendering
- · Basic Rendering
- · Adding Lights to the Design
- · Modifying Lights
- Controlling the Rendering Environment
- · Plotting Rendered Images

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# AutoCAD Advanced 2017

**AutoCAD Advanced 2017 The Complete Guide** is designed to give you a solid understanding of AutoCAD features and capabilities. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

In this course you'll learn a number of advanced concepts from working with attributed blocks and external references, data exchange, advanced hatch and linetype creation, and all the way to isometric and technical drawing concepts.

To get the most out of this course, we strongly recommend you review every topic within the course, and use all the learning styles to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real world, Let Me Try examples.

## User's prerequisites

You don't need any previous experience with AutoCAD® to take this course.

### **Course Outline**

## **Defining Block Attributes**

- · Understanding Attributes
- Editing Block Attributes
- · Managing Attributes
- Extracting Attributes

## **Understanding External References**

- · Understanding External References
- External References Palette
- · Attaching Files to a Drawing
- · Additional Xref Tools

## **Working with Advanced Drawing Options**

- Multilines
- Revision Clouds, Wipeouts and NURBS

# **Grouping and Advanced Editing of Sketched Objects**

- Grouping Sketched Objects
- Changing Properties of an Object
- Advanced Editing of Sketched Objects
- Miscellaneous Tools

## Working with Data Exchange

- Understanding the Concept of Data Exchange in AutoCAD
- Other Data Exchange Formats
- · Raster Images
- · Editing Raster Images
- Miscellaneous File Tools
- Object Linking and Embedding (OLE)

### AutoCAD on the Cloud

- AutoCAD and A360
- · Using Hyperlinks with AutoCAD
- · The Drawing Web Format

## **Script Files and Macros**

- Script Files
- Automation

## **Creating Linetypes and Hatch Patterns**

- Creating Linetypes and Hatch Patterns
- · Alternate Linetypes
- How Hatch Works?
- · Hatch Pattern with Dashes and Dots

### **AutoCAD Customization**

- · Customizing the acad.pgp File
- Sections of the acad.pgp File
- · Customizing the User Interface

## **Technical Drawing with AutoCAD**

- Introduction to Technical Drawing
- Dimensioning
- · Sectional Views
- Auxiliary Views
- · Detail Drawing, Assembly Drawing, and Bill of Materials

#### **Isometric Drawings**

- Isometric Drawings
- Setting the Isometric Grip and Snap
- Drawing Isometric Circles
- Creating Fillets, Dimensioning Objects and Isometric Text

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# AutoCAD Architecture 2017

AutoCAD Architecture is a specialized "flavor" of AutoCAD, with tools and features designed specifically for architectural design and documentation. Architectural drafting and documentation is more efficient with the software's intuitive environment and tools built specifically for architects.

You'll follow a workflow-based approach that mirrors the development of projects in the real world – creating walls and other features, working with AutoCAD architectural objects, managing projects and documenting your designs.

## User's prerequisites

You don't need any previous experience with AutoCAD® Architecture to take this course.

## **Course Outline**

## What's New in AutoCAD 2017

• Simplified, Connected, and Innovative

# **Workflow and User Interface**

- The AutoCAD Architecture User Interface
- Project Overview
- · Navigating Your Models
- · Working with Your Models
- · Working with the Help

#### Walls

- · Creating Walls
- · Further Modification
- · Wall Styles
- Curtain Walls
- Additional Features

## **Designing with Architectural Objects**

- Working with Architectural Objects
- · Doors & Windows
- · Slabs, Roofs, Beams, and Columns
- Stairs & Railings

### **Project Management**

- · Creating a New Project
- · Creating the First Floor
- · Working with Projects
- Standards

#### **Conceptual Models**

- · Creating Mass Elements and Mass Groups
- · Slices and Napkin Sketches

## **Documentation**

- Documentation
- Creating Views
- Tags & Schedules
- · Sheet Sets
- · Multi View Blocks

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# AutoCAD Civil 3D 2017

AutoCAD Civil 3D software is a civil design and documentation solution that supports Building Information Modeling (BIM) workflows. Using AutoCAD Civil 3D, infrastructure professionals can better understand project performance, maintain more consistent data and processes, and respond faster to change.

**AutoCAD Civil 3D The Complete Guide** is designed to give you a solid understanding of Civil 3D features and capabilities from the basics through to advanced components. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical Let Me Try examples.

## User's prerequisites

You don't need any previous experience with AutoCAD® Civil 3D to take this course.

### **Course Outline**

### Introduction to AutoCAD Civil 3D

- Introduction to AutoCAD Civil 3D
- Getting Started in AutoCAD Civil 3D

### **Working with Points**

- · Working with Points
- · Point Settings and Styles
- · Editing Points
- · Point Groups

## **Working with Surfaces**

- · Working with Surfaces
- Editing Surfaces
- Working with Surface Styles
- Surface Tools

# **Surface Volumes and Analysis**

- Surface Volumes
- Analysis
- · Tables and Labels

## Alignments

- · Alignments
- Tools
- Checks and Criteria
- · Styles and Tabs
- · Alignment Labels and Tables
- Superrelevation

## **Working with Profiles**

- · Working with Profiles
- More on Profiles
- · Profile View Styles
- Band Sets

## **Working with Assemblies and Subassemblies**

- · Working with Assemblies and Subassemblies
- · Codes and Styles
- Subassemblies

## **Working with Corridors and Parcels**

- · Working with Corridors
- · Editing Corridors
- · Introduction to Parcels

## **Sample Lines, Sections and Quantity Takeoffs**

- Sample Lines, Sections and Quantity Takeoffs
- Sections
- Quantity Take-offs

## **Feature Lines and Grading**

- · Feature Lines and Grading
- Grading

### **Pipe Networks**

- · Pipe Networks
- Part Rules and Structure Rules
- Pipe Networks and Network Properties
- · Labels, Tables and Checks

#### **Pressure Networks**

- · Pressure Networks
- Pressure Network Properties
- Labels, Tables and Checks

## Working with Plan Production

- Working with Plan Production Tools and Data Shortcuts
- Data Shortcuts and References

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# AutoCAD MEP 2017

**AutoCAD MEP 2017 The Complete Guide** is designed to give you a solid understanding of AutoCAD MEP features and capabilities - from the basics through to advanced and complex building systems. You will learn to create accurate drafts, designs and documents from within a familiar AutoCAD-based environment.

AutoCAD MEP enables the support of mechanical, electrical, and plumbing (MEP) systems throughout the building lifecycle. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

To get the most out of this course, we strongly recommend you review every topic within the course, and use all the learning styles to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real world, Let Me Try examples.

# User's prerequisites

You don't need any previous experience with AutoCAD® MEP to take this course.

### **Course Outline**

### What's New in AutoCAD 2017?

· Simplified, Connected, and Innovative

#### Introduction to AutoCAD MEP

- Introduction to AutoCAD MEP
- AutoCAD MEP User Interface
- · Getting Started
- · Saving Files
- · Opening Files
- · Finding and Using AutoCAD MEP Help

## **Project Work**

- Starting a Project
- Expanded Views on Projects
- · Spaces in AutoCAD MEP
- · Editing in AutoCAD MEP
- Workspaces and Settings

## **Creating and Editing Objects**

- · Walls and Wall Settings
- Creating Doors and Using Door Settings
- Creating Windows and Window Settings
- Creating Roofs and Using Roof Settings
- Creating Stairs and Using Stair Settings
- Grids, Beams, Columns, and Braces and Editing in a File
- · Creating and Editing Primitives

#### **Creating and Editing HVAC Systems**

- · Air Handling Equipment
- · Creating and Editing Ducts
- Creating and Editing Duct Fittings

### **Creating and Editing Piping Systems**

- · Creating Piping Systems
- Laying and Editing Pipes
- Creating and Editing Pipe Fittings

## **Plumbing Additions**

- Plumbing Fixtures and Equipment
- Plumbing Lines and Fixtures Properties

### **Creating and Editing Electrical Systems**

- Creating and Editing Panels and Devices
- · Creating and Editing Wire and Conduits
- · Creating and Editing Circuits

## **Representation and Schedules**

- · Creating and Editing Views
- · Creating and Editing Schedules
- Managing Cell Information

## Schematics

Working with Schematics

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# AutoCAD Plant 3D 2017

**AutoCAD Plant 3D 2017 The Complete Guide** is designed to give you a solid understanding of AutoCAD Plant 3D features and capabilities. In this course you will learn from Creating Projects and P&IDs to Isometric Drawings, Creating an Orthographic Drawing and Working with the Data and Report Creator. This course includes text, images, audio, video, quizzes and practical Let Me Try exercises to accommodate all learning styles.

AutoCAD Plant 3D is used to design and document process plants and contains various predefined shapes of plant components; it comes along with AutoCAD P&ID which is used to create piping and instrumentation drawings. Plant 3D enables engineers and plant designers to efficiently produce P&IDs, and then integrate them into a 3D plant design mode

## User's prerequisites

You don't need any previous experience with AutoCAD® Plant 3D to take this course.

# **Course Outline**

## **Introduction to Plant 3D**

- · Starting AutoCAD Plant 3D
- AutoCAD Plant 3D User Interface
- Workspaces and Invoking Commands
- Tool Palettes and Dialog Boxes
- Backup Files and Closing a Drawing
- Opening Drawings and Quitting
- AutoCAD Plant 3D Help

## **Creating Projects and P&IDs**

- Introduction
- · Designing a P&ID
- · Validating the Drawing
- · Editing the Drawing

# **Creating Structures**

- Creating a Grid and Adding Members
- · Creating Stairs
- Creating Railing
- Creating Ladders
- Creating a Plate/Grate
- Creating Footing
- Editing the Structural Members
- Visibility Options
- Exchanging Data with Other Applications

## **Creating Equipment**

- Creating Equipment
- · Placing Equipment
- Customized Equipment
- Modifying Equipment
- Converting Solid Models
- tur I: IB : I: O
- Attaching and Detaching Objects
- Adding Nozzles I
- · Adding Nozzles II
- · Modifying Nozzles

# **Adding Specifications and Catalogs**

- · The Spec Editor
- Adding and Editing Parts
- · Working with the Catalog Editor
- Modifying the Branch Table

# **Routing Pipes**

- The Spec Viewer
- · Routing a Pipe
- Creating Branches Weld Connections

## **Adding Valves, Fittings and Pipe Supports**

- · Adding Valves and Fittings
- Pipe Supports
- Modifying the Pipe Components

## **Creating Isometric Drawings**

- · Isometric Drawings
- · Quick or Production Creation
- · Configuring Isometric Drawing Settings
- Iso Messages and Component Files

## **Creating Orthographic Drawings**

- · Creating an Orthographic Drawing
- Using Different Views

## **Creating Orthographic Drawings**

- Finding the Data in a File
- The Data and Report Creator

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# Autodesk 3ds Max 2017

**Autodesk 3ds Max 2017 The Complete Guide** is designed to give you a solid understanding of 3ds Max features and capabilities, from the basics through advanced components. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical Let Me Try examples.

3ds Max Design is widely used by architects, game developers, design visualization specialists, and visual effects artists. A wide range of modeling and texturing tools make it an ideal platform for 3D modelers and animators.

## User's prerequisites

You don't need any previous experience with Autodesk® 3ds Max® to take this course.

#### **Course Outline**

### **Introduction to Autodesk 3ds Max**

- · Introduction to Autodesk 3ds Max
- Autodesk 3ds Max Interface Components
- Snap Settings
- Units Setup
- Tools
- Hot Keys
- Customizing the Colors of the User Interface

### **Standard Primitives**

- · Introduction to Standard Primitives
- Selection Techniques
- Scene Management
- Standard Primitives
- · Rendering a Still Image

## **Extended Primitives**

- · Introduction to Extended Primitives
- · Extended Primitives
- · AEC Extended Primitives
- Creating Doors
- · Creating Windows
- Creating Stairs
- · Introduction to Splines and Extended Splines
- Creating Splines
- Creating Extended Splines

## **Materials and Maps**

- · Introduction to Materials and Maps
- Material Editor Tools
- · Standard Materials
- Architectural Material
- Maps

## **Modifying 3D Mesh Objects**

- Introduction to Modifying 3D Mesh Objects
- Sub-object Levels in Editable Mesh

## **Graphite Modeling Technique**

- · Graphite Modeling Toolset
- · Graphite Modeling Toolset Continued

## **NURBS Modeling**

- · Introduction to NURBS Modeling
- NURBS Surfaces
- Converting and Modifying NURBS

## **Compound Objects**

- · Compound Objects
- · Additional Compound Objects

#### **Modifiers**

- · Introduction to Modifiers
- Type of Modifiers

## **Animation Basics**

- Introduction to Animation Basics
- Understanding Animation and Time Controls
- · Morph Compound Object
- Rendering and Previewing an Animation
- · Rendering Effects
- · mCloth Modifier
- Constraints
- · Simulation Controls
- Helpers
- Atmospheric Apparatus
- · Event Display Area

## **Particle Flow**

- · Introduction to Particle Flow
- · Particle View Window
- Understanding Particle Flow Actions

## Particle Systems and Space Warps I

- Introduction to Particle Systems and Space Warps I
- · Mesh tools
- · Categories of Space Warps

## **Particle Systems and Space Warps II**

- Introduction to Particle Systems and Space Warps II
- Geometric/Deformable Space Warps
- Modifier-Based Space Warps

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# Autodesk A360 2017

**Autodesk A360 The Complete Guide** is designed to provide a solid base for using the tools and features contained within Autodesk A360. This course focuses on the project and data management tools contained within A360; this includes creating and managing projects, uploading and updating data, viewing files, and the collaboration features for working with others, both on your team as well as outside vendors and suppliers.

Additionally, this course provides an introduction to the advanced capabilities contained within the "Team" versions of A360 - Fusion Team and BIM 360 Team - and explores the A360 specific tools within Autodesk applications Fusion 360, Inventor, Revit, and AutoCAD.

# User's prerequisites

You don't need any previous experience with Autodesk® A360® to take this course.

## **Course Outline**

### Welcome to Autodesk A360

- What is A360?
- · The User Interface

#### **Projects**

- · Creating Projects
- · Project Data
- · Other Project Features
- An Introduction to Team

## **Working with Your Data**

- A360 Data
- A360 Collaboration
- A360 Drive

# A360 with Other Autodesk Applications

- A360 and AutoCAD
- · Other Autodesk Products

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# Autodesk BIM 360 Docs 2017

**Autodesk BIM 360 Docs The Complete Guide** is designed to give you a solid understanding of BIM 360 Docs, features and capabilities, from navigating the interface to the Mobile Functionality topics. This course includes text, images, audio, video, quizzes and practical Let Me Try exercises to accommodate all learning styles.

Autodesk BIM 360 Docs is a Construction Document Management cloud application that ensures the entire project team is building from the correct version of documents, plans, and models. Professionals save time, reduce risk, and mitigate errors in construction projects by publishing, sharing, viewing and editing all their files with unlimited storage; maintaining version control and change tracking.

# User's prerequisites

You don't need any previous experience with Autodesk® BIM 360 to take this course.

#### **Course Outline**

### Project Set Up - A360 for BIM 360™ Docs (Web Browser)

- · A360 Basics and Setup
- User Interface

# User Interface - BIM 360™ Docs User Interface (Web Browser)

- User Interface BIM 360 Docs
- Project Setup

### **Documents - Publishing and Review**

- Managing and Publishing Documents
- Reviewing and Markups

## **Mobile Functionality**

- Overview of Mobile Application
- Use and Function

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# Autodesk BIM 360 Field 2017

**Autodesk BIM 360 Field 2017 The Complete Guide** is designed to give you a solid understanding of BIM 360 Field, its features and capabilities, from the Basics to the Mobile Further Functionality topics. This course includes text, images, audio, video, and quizzes to accommodate all learning styles.

Autodesk BIM 360™ Field is field management software for 2D and 3D environments that combines mobile technologies at the construction site with cloud- based collaboration and reporting; it helps improve quality, safety and profitability. BIM 360 Field streamlines commissioning and handover, manages field workflow and performance, and allows professionals to navigate and interact with models on their tablet.

# User's prerequisites

You don't need any previous experience with Autodesk® BIM 360 to take this course.

## **Course Outline**

#### **BIM 360 Field Introduction**

- BIM 360 Field Basics and Overview
- BIM 360 Field Project Setup

## BIM 360 Field Web Portal - Tools

- Issues
- Tasks
- Checklists
- Photos
- Sync Uploads

## Using Documents in BIM 360 Field

- Library
- Attachments and Markups
- Navigation Drawings and Models
- · Further Functionality

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# Autodesk BIM 360 Glue 2017

**Autodesk BIM 360 Glue 2017 The Complete Guide** is designed to give you a solid understanding of BIM 360 Glue, features and capabilities, from the basics to the Mobile Application Modelling Tools. This course includes text, images, audio, video, quizzes and practical Let Me Try exercises to accommodate all learning styles.

BIM 360 Glue is a cloud-based BIM management and collaboration product; it connects the entire project team and streamlines project workflows from preconstruction through construction execution. With anywhere, anytime access to the most recent project information throughout the project lifecycle, BIM 360 Glue helps review projects and resolve coordination issues faster, while advancing the construction layout process.

# User's prerequisites

You don't need any previous experience with Autodesk® BIM 360 to take this course.

# **Course Outline**

### **BIM 360 Glue Introduction**

- BIM 360 Glue Basics and Overview
- Integration with other Autodesk Products
- BIM 360 Glue Project Setup

## Working with Glue - Web and Desktop

- Setting up Models and Drawings for Use
- Viewing and Navigating Merged Models (Web & Desktop Version)
- · Coordination with BIM 360 Glue

## Working with Glue - Mobile Application

- Overview of Mobile Application
- · Working with Projects
- Modelling Tools

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# Autodesk Dynamo Essentials 2017

Dynamo is a visual programming extension for Autodesk Revit that helps you compose custom scripts to generate geometry and process data. Dynamo solves challenges using a ruled-based system of thinking, something typically referred as algorithmic thinking.

**Dynamo Essentials 2017 The Complete Guide** is a 5-hour course that will introduce

## Dynamo Essentiais 2017 The Complete Guide 15 a 3-hour course that will introduce

You don't need any previous experience with Autodesk® Dynamo to take this course.

## Course Outline

User's prerequisites

#### Introduction

· About Dynamo

### **Getting Started**

- · Dynamo Interface
- Graphs
- · Graph Controls
- Package Manager

## **Data Manipulation**

- Lists
- Managing Lists
- Preset Values
- Math
- Strings

fundamentals of Dynamo, think programmatically when solving design challenges, use Dynamo to drive BIM using parametric logic, and mine information out of BIM and use it for documentation.

you to the basics of Dynamo. After completing this course you will be able to describe the

## Working with Geometry

- · Points
- Curves
- Surfaces
- Solids

#### **Dynamo for Revit**

- · Managing Families
- Revit Workflows

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## Autodesk Formit 360 2017

FormIt 360 2017 is a cloud-based architectural modeling application built to capture conceptual building designs. Through a series of simple and easy-to-use tools like sketching and extruding, you tug, pull, and push to define blocks thus building your model. FormIt 360 can become a key component of your Building Information Modeling (BIM) workflow as your concepts can be further refined within Autodesk Revit.

**Autodesk FormIt 360 2017 The Complete Guide** is designed to give you a solid understanding of FormIt 360 and its features. This course includes text, images, audio,

video, quizzes and practical Let Me Try exercises to accommodate all learning styles. In this course, you will start by familiarizing with FormIt 360 features. After, you will explore how to start a new sketch and the basics of adding objects. Then, you'll learn about tools to aid in the creation of both 2D and 3D objects, as well as how to modify and organize 3D objects. Finally, you'll discover the key features of FormIt 360 Pro.

## User's prerequisites

You don't need any previous experience with Autodesk® FormIt to take this course.

#### **Course Outline**

#### Welcome to FormIt 360

- What is FormIt 360?
- · Using the FormIt 360 User Interface

#### **Getting Started**

- · Building Your First Model
- · More Sketching Tools

#### **More Design Tools**

- · More Sketching
- · More 2D Tools
- Additional Tools
- Grouping

#### **Working with Designs**

- Working with Designs
- More Tools
- · Data Import

#### FormIt 360 Pro

- Materials
- Collaboration
- Analysis

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## Autodesk Fusion 360 2017

**Autodesk Fusion 360 2017 The Complete Guide** is designed to give you a solid understanding of Fusion 360's modelling features and capabilities. This course is designed to use all learning styles from text, audio, video, interactivity and quizzes. Fusion 360 is a 3D CAD, CAM, and CAE tool. It connects your entire product development process in a single cloud-based platform - that works on both Mac and PC.

You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning 2D drawing skills, editing entities, working with T-Splines, adding images and materials, using inspection tools and creating drawings.

## User's prerequisites

You don't need any previous experience with Autodesk® Fusion 360 to take this course.

## **Course Outline**

#### **Fusion 360 User Interface**

- · The Fusion 360 Interface
- Projects
- Setting Preferences
- Workspaces
- · The Browser
- Toolbars
- Navigation Bar
- Using the ViewCube
- Named Views
- Mouse or Track Pad Navigation
- Visual Styles
- Environment and Effects
- Selection Filters and Tools
- Invite people to a project
- A360 to Manage Relationships and Copy Files

## **Creating Sketch Geometry**

- Creating a New Sketch
- Sketching with Lines, Splines and Points
- Circles
- Rectangles
- Arcs
- Polygons
- 21072
- · Geometric Sketch Constraints
- · Dimensional Constraints
- Editing Sketch Geometry
- · Projecting Geometry

#### **Modifying Sketch Geometry**

- Fillets
- · Trim, Extend and Break
- Offset
- Mirrored Sketches
- Circular and Rectangular Patterns
- · Solid Modeling Tools
- Quick Shape Creation
- · Creating an Extruded Feature
- Creating a Revolve

- · Creating a Sweep
- Creating a Loft
- Creating a Rib
- · Creating a Web
- · Creating a Hole
- · Creating a Thread
- Mirrored Features
- · Creating Patterns

### **Editing Tools**

- Press / Pull
- · Fillets and Chamfers
- Rule Fillets
- Shells
- Draft
- Combine Bodies
- Split Tools
- Replace Face
- Move and Align
- Work Planes, Work Axes and Work Points
- · Using Direct Edit Tools

## **T-Spline Surface Modeling**

- The Sculpt Workspace
- Creating Primitive Shapes
- Creating a T-Spline Extruded Surface from a Sketch
- Creating a T-Spline Revolved Surface from a Sketch
- Creating a Lofted T-Spline Surface from a Sketch
- Creating a Swept T-Spline Surface from a Sketch
- · Working with Pipes
- · Editing an Edge
- · Editing Forms
- Assigning Symmetry
- · Working with Vertices
- Creases
- Additional T-Spine Modification Tools

#### Assemblies and Constraints

- · Understanding Components in Fusion
- Creating Components

- Reusing Components
- Positioning Components
- Using the Rigid Joint Type
- Working with the Different Types of Joints
- Understanding Joint Origins
- · Creating Rigid Groups
- Understanding Contact Sets
- Enabling Motion Linking
- Driving Join
- · Creating Motion Studies
- Managing Top Level Assembly and Subassemblies

## Materials, Images and Inspection

- · Inspection Tools
- Inspect
- · The Measure Tool
- · Design Interferences
- Curvature Comb Analysis Zebra Analysis
- · Section Analysis Draft Angle Analysis
- Curvature Map Analysis
- Component Color Cycling
- Assigning Materials
- · Managing Materials
- Using Texture Map Controls
- Inserting Images for Use as Decals
- · Inserting Images as Modeling References
- Tiles

#### **Fusion 360 Output**

- Base, Projected, Section and Detail Views
- Add Annotations
- Edit Views
- Edit Border and Title Block
- Create A STLV (3D Print) File
- Simulation
- Structural Constraints and Loads

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## Autodesk Infraworks 360 2017

**Autodesk Infraworks 360 2017 The Complete Guide** is designed to give you a solid understanding of InfraWorks 360 features and capabilities. It emphasizes on the use of intelligent tools, working with styles, design creation, presentation and sharing. In addition, this course covers the Roadway Design, Drainage Design and Bridge Design modules.

InfraWorks 360 is a geospatial and engineering BIM platform that allows planning, designing, building and managing infrastructure in the context of the real world. Professionals can identify opportunities, risks, and challenges throughout the project lifecycle to make informed, real-time decisions based on intelligent models.

## User's prerequisites

You don't need any previous experience with Autodesk® Infraworks 360 to take this course.

#### **Course Outline**

#### The Infraworks Environment

- User Interace
- Data Sources, Panel Settings & Features
- Application Options and Asset Cards Overview
- Coordinate Systems
- · Working with GIS Data

## **Navigation and Selection**

· Navigation and Selection

### **Working with Styles**

- · Working With Styles
- Materials

#### **Sourcing for Existing Conditions**

• Sourcing for Existing Conditions

#### **Creating the Design**

- · Propose Site Features
- Proposals
- Roads and Railways
- Coverages
- Trees
- Pipelines and Pipeline Connectors
- Water Areas
- Barriers
- · Point of Interest

## **Analyzing Your Design**

- Measurements
- · Site Visual Effects and Statistics
- · Working with Themes

#### **Presenting Your Design**

- · Storyboards
- Snapshot

### **Sharing Your Design**

- · Sharing Your Design
- · Publish Options and Design Feeds
- Scenarios
- InfraWorks and AutoCAD Civil 3D
- · Working with Revit Models

#### **Roadway Design Module**

- Roadway Design Toolbar Overview
- · Creating Design Roads and Intersections
- · Road Editing Tools
- Road Analysis

#### **Drainage Design Module**

- · Drainage Watershed
- Culverts
- Drainage Network

## **Bridge Design Module**

- Introduction
- · Exploring the Bridge Design Stack Creating Bridges
- · Editing Bridges with Properties and Gizmos
- · Bridge Analysis Tools

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## Autodesk Inventor 2017

Inventor is a parametric CAD software that offers an easy-to-use set of tools for 3D mechanical design, documentation, and product simulation. Digital Prototyping with Inventor helps you design and validate your products before they are built - to deliver better products, reduce development costs, and get to market faster.

#### User's prerequisites

You don't need any previous experience with Autodesk® Inventor to take this course.

#### **Course Outline**

#### **Inventor R2 and R3 Improvements**

- R2 Enhancements
- R3 Enhancements

#### What's New - General, Sketching, and Part Enhancements

- General Updates
- · Sketching Enhancements
- Part Enhancements
- · Technical Specifications

#### What's New - Assembly and Drawing Enhancements

- Assembly and Drawing Enhancements
- Technical Specifications
- · Interoperability Updates

#### What's New - Presentations

· Presentation Enhancements

## **Introduction to Autodesk Inventor 2017**

- · Getting Started with Autodesk Inventor
- · Working with Drawing Display Tools
- Important Terms and Definitions

## **Drawing Sketches for Solid Models**

- · Understanding the Sketching Environment
- Drawing Sketched Entities I
- · Drawing Sketched Entities II
- · Fillets, Chamfers, and Splines

## **Adding Constraints and Dimensions to Sketches**

- Working with Geometric Constraints
- · Working with Dimensional Constraints
- Measuring Sketched Entities

#### **Editing, Extruding and Revolving the Sketches**

- · Editing Sketched Entities
- Creating Patterns, Adding Text and Images
- · Extruding, Revolving, Primitives and Freeforms
- · Rotating the View and Controlling the Display

#### Other Sketching and Modeling Options

- · Creating Work Planes
- Creating Work Axes and Points
- Other Extrusion and Revolution Options

#### Advanced Modeling Tools - I

- Creating Holes
- · Creating Fillets and Chamfers
- Moving the Faces and Editing Features
- · Project Entities in the Sketching Environment

#### **Advanced Modeling Tools - II**

- Sweeps, Lofts, Coils and Threads
- Shells, Drafts and Splits
- Editing Surfaces
- Editing without Using Sketches

## Assembly Modeling - I

- · Understanding Assembly Modeling
- Assembling Components using the Constrain Tool
- Applying Joints to the Assembly
- Relationships, Moving and Rotating Components

## Assembly Modeling - II

- · Editing Assembly Constraints and Components
- · Modifying Components in An Assembly
- Analyzing Assemblies and Creating Representations

## **Working with Drawing Views**

- · Drawing Standards
- Dimension Styles
- · Annotating the Drawing

#### Presentations

- The Presentation Module
- · Animating An Assembly

## **Working with Special Design Tools**

- Adaptive Parts and Defining Parameters
- iParts

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• 3D Sketches

#### **Working with Sheet Metal Components**

- · Understanding Sheet Metal
- Additional Sheet Metal Options

#### **Introduction to Weldments**

- · Understanding Weldments
- · Editing Weldments
- · Adding the Finishing Touches

#### **Miscellaneous Tools**

- Sketches
- iMates
- Title Blocks

#### **Introduction to Stress Analysis**

- · Introduction to Analysis
- More on Analysis
- Starting an Analysis
- · Applying Constraints and Loads

## **Introduction to Plastic Mold Design**

- Starting with Plastic Mold Design
- · Adjusting the Model
- · Generating the Core and Cavity
- Runners, Wells, and Channels

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## Autodesk Inventor Professional 2017

**Autodesk Inventor Professional The Complete Guide** is designed to give you a solid understanding of Inventor features and capabilities, from the basics through advanced and complex 3D modeling components.

Inventor is a parametric CAD software that offers an easy-to-use set of tools for 3D mechanical design, documentation, and product simulation. Digital Prototyping with Inventor helps you design and validate your products before they are built - to deliver better products, reduce development costs, and get to market faster.

## User's prerequisites

You don't need any previous experience with Autodesk® Inventor to take this course.

## **Course Outline**

### New for 2017 - Features & Enhancements

- R2 Enhancements
- R3 Enhancements
- General Updates
- · Sketching Enhancements
- · Part Enhancements
- Technical Specifications
- · Assembly and Drawing Enhancements
- Technical Specifications
- · Interoperability Updates
- Presentations

#### **Introduction to Autodesk Inventor 2017**

- · Getting Started with Autodesk Inventor
- Working with Drawing Display Tools
- Important Terms and Definitions
- Drawing Sketches for Solid Models

## **Understanding the Sketching Environment**

- Drawing Sketched Entities I
- · Drawing Sketched Entities II
- Fillets, Chamfers, and Splines

#### **Adding Constraints and Dimensions to Sketches**

- Working with Geometric Constraints
- Working with Dimensional Constraints
- Measuring Sketched Entities

## **Editing, Extruding and Revolving the Sketches**

- · Editing Sketched Entities
- Creating Patterns, Adding Text and Images
- · Extruding, Revolving, Primitives and Freeforms
- Rotating the View and Controlling the Display

#### **Other Sketching and Modeling Options**

- Creating Work Planes
- Creating Work Axes and Points
- Other Extrusion and Revolution Options

## **Advanced Modeling Tools - I**

- Creating Holes
- · Creating Fillets and Chamfers
- Moving the Faces and Editing Features
- · Project Entities in the Sketching Environment

#### Advanced Modeling Tools - II

- · Sweeps, Lofts, Coils and Threads
- · Shells, Drafts and Splits
- Editing Surfaces
- · Editing without Using Sketches

#### Assembly Modeling - I

- · Understanding Assembly Modeling
- · Assembling Components using the Constrain Tool
- Applying Joints to the Assembly
- Relationships, Moving and Rotating Components

#### Assembly Modeling - II

- Editing Assembly Constraints and Components
- Modifying Components in An Assembly
- Analyzing Assemblies and Creating Representations

### **Working with Drawing Views**

- · Drawing Standards
- Dimension Styles
- · Annotating the Drawing

### Presentations

- The Presentation Module
- Animating An Assembly

## **Working with Special Design Tools**

- Adaptive Parts and Defining Parameters
- iParts
- 3D Sketches

## **Working with Sheet Metal Components**

- Understanding Sheet Metal
- Additional Sheet Metal Options

## **Introduction to Weldments**

- Understanding Weldments
- Editing Weldments
- · Adding the Finishing Touches

#### **Miscellaneous Tools**

- Sketches
- iMates
- Title Blocks

#### **Introduction to Stress Analysis**

- Introduction to Analysis
- · More on Analysis
- Starting an Analysis
- · Applying Constraints and Loads

#### Introduction to Plastic Mold Design

- Starting with Plastic Mold Design
- · Adjusting the Model
- Generating the Core and Cavity
- Runners, Wells, and Channels

#### Introduction to Tube & Pipe

· Creating your First Tube & Pipe Assembly

#### **Rigid Pipe**

- · Rigid Pipe Styles
- Routing Pipe
- · Pipe Fittings
- · Other Rigid Pipe Tools

### Tubing

- · Routing Tube
- Working with Tube Routes
- Fittings

#### **Self-Draining Pipe**

· Building Self Draining Pipe



# Autodesk Inventor Professional 2017 (cont'd)

## Course Outline (cont'd)

## Flexible Hose

- · Building Flexible Hoses
- Working with Flexible Hoses

#### **Component Authoring**

- Building Your Own Tube & Pipe Components
- Tube and Pipe Documentation

#### **Drawings and Annotation**

- Bill of Materials, Parts Lists, and Ballooning
- · Exporting Data

#### **Introduction to the Cable and Harness Environment**

• The Cable and Harness Environment

#### Harnesses

- · Building the Harness
- · Working with the Harness

#### **Ribbon Cables**

· Creating Ribbon Cables

#### **Harness Documentation**

- · Reports and Documentation
- · Nailboard Drawings

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# Autodesk Inventor Routed Systems 2017

**Autodesk Inventor Routed Systems 2017 The Complete Guide** is designed to give you a solid understanding of more complex modelling options available in Inventor. These options include the tools and analyses for adding Tubing and Piping to an Inventor model, as well as describing how to add Cables and Harnesses.

Inventor is a parametric CAD software offers an easy-to-use set of tools for 3D mechanical design, documentation, and product simulation. Digital Prototyping with Inventor helps you design and validate your products before they are built to deliver better products, reduce development costs, and get to market faster.

## User's prerequisites

You don't need any previous experience with Autodesk® Inventor to take this course.

## **Course Outline**

#### **Introduction to Tube & Pipe**

• Creating your First Tube & Pipe Assembly

#### **Rigid Pipe**

- · Rigid Pipe Styles
- · Routing Pipe
- Pipe Fittings
- · Other Rigid Pipe Tools

#### **Tubing**

- Routing Tube
- · Working with Tube Routes
- Fittings

#### **Self-Draining Pipe**

· Building Self Draining Pipe

#### Flexible Hose

- · Building Flexible Hoses
- · Working with Flexible Hoses

#### **Component Authoring**

- · Building Your Own Tube & Pipe Components
- Tube and Pipe Documentation

#### **Drawings and Annotation**

- · Bill of Materials, Parts Lists, and Ballooning
- Exporting Data

#### Introduction to the Cable and Harness Environment

· The Cable and Harness Environment

#### Harnesses

- Building the Harness
- Working with the Harness

#### **Ribbon Cables**

· Creating Ribbon Cables

#### **Harness Documentation**

- Reports and Documentation
- · Nailboard Drawings

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## Autodesk Moldflow Adviser 2017

**Autodesk Moldflow Adviser 2017** gives you an understanding of polymer flow and how it relates to part quality and introduces you to Autodesk Moldflow Adviser. This course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

## User's prerequisites

You don't need any previous experience with Autodesk® Moldflow® Insight to take this course.

## **Course Outline**

#### It's All About Flow

- It is all about Flow Introduction
- · How Plastic fills a mold
- · Key molding settings
- Moldflow Flow Concepts

#### **User Interface Overview**

- User Interface Overview Introduction
- Adviser's User Interface Components
- · Working in Adviser

## **Analysis Workflow**

- Analysis Workflow Introduction
- · Optimizing the Part Filling
- Optimizing the Fill and Pack of the Mold
- Optimizing the Part's Warpage

#### Materials

- · Materials Introduction
- Material Properties
- · Materials Database

## **Design Adviser Analysis**

- Design Adviser Analysis Introduction
- Analysis setup
- Results

#### **Gate Placement**

- Gate Placement Introduction
- Flow Concepts
- Number of gates
- · Position gates

#### **Molding Window**

- · Molding Window Introduction
- · Analysis inputs and results

### **Evaluating the Part Design**

· Evaluating Part Designs

#### Reports

- Reports Introduction
- · Create reports
- Export files
- Communicator

#### **Gate and Runner Design**

- Gate and Runner Design Introduction
- Flow Concepts
- Gate design
- · Modeling feed systems
- · Runner Sizing
- · Pack and Warp Overview
- Pack and Warp Overview Introduction
- Packing Analysis
- Packing Results
- Shrinkage
- · Warpage Analysis
- · Warpage Results

## **Cooling Modeling and Analysis**

- · Cooling Modeling and Analysis Introduction
- · Cooling modeling
- Cooling Overview
- · Cooling Analysis
- Effect of Cooling on Packing and Warpage

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# Autodesk Moldflow Insight Fundamentals 2017

The Introduction to **Autodesk Moldflow Insight Fundamentals 2017** is a 40-hour course that gives you an understanding of polymer flow and how it relates to part quality, and introduces you to Autodesk Moldflow Insight. In It's All About Flow, learn how polymers flow and how the Moldflow design philosophy is used to address polymers characteristics. In Gate Placement, find out where and why gates should be placed where they are and how Moldflow can help with gate placement. In Molding Window, discover the primary processing conditions used in injection molding and how to optimize them. In Gate and Runner Design, learn how to model and analyze the runner system for injection molding—including valve gates. In Meshing, discover the different mesh types used in Moldflow and how to create a good mesh. In Materials, familiarize yourself with specific polymer characteristics and polymer related molding defects, and learn how to find materials to use in a Moldflow analysis. In Fill and Pack Analysis, find out how to run filling and packing analyses and what results are available. In Results, discover how to result plot properties and how to manipulate them. Molding problems and results guidelines are also discussed. And finally, in Reports, learn the methods of sharing results from Moldflow to others on your team.

## User's prerequisites

You don't need any previous experience with Autodesk® Moldflow® Insight to take this course.

## **Course Outline**

#### It's All About Flow

- Introduction
- · How Plastic Fills a Mold
- Key Mold Settings
- Moldflow Flow Concepts
- · Moldflow Design Philosophy

#### **Gate Placement**

- Introduction
- · Flow Concepts
- · Number of Gates
- Position Gates

### **Molding Window**

- Introduction
- · Analysis Inputs
- · Viewing Results

#### **Gate and Runner Design**

- Introduction
- Flow Concepts
- Gate Design
- Modeling Feed Systems
- · Manual Creation
- · Runner Balancing
- · Valve Gates

#### Meshing

- Introduction
- Types of Mesh
- · Importing
- · Generate Mesh
- Mesh Evaluation
- Closer Inspection
- · Manual Mesh Repair

#### Materials

- Introduction
- · Material Properties
- · Materials Database

### Fill and Pack Analyses

- Introduction
- Fill Inputs
- Fill Results
- Pack/Hold Control
- · Pack Results

## Results

- Introduction
- · Plot Type
- Plot Properties
- Results Display

- · Basic Symptoms
- Molding Problems
- Guidelines
- · Guidelines 2

#### Reports

- Introduction
- Create Reports
- · Export Files
- Communicator

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# Autodesk Navisworks Manage 2017

**Autodesk Navisworks Manage 2017 The Complete Guide** is designed to give you a solid understanding of Navisworks Manage features and capabilities, from the basics through advanced components. Navisworks project review software enables architecture, engineering, and construction professionals to holistically review integrated models and data with stakeholders to gain better control over project outcomes.

## User's prerequisites

You don't need any previous experience with Autodesk® Navisworks to take this course.

#### **Course Outline**

#### **Introduction to Autodesk Navisworks**

- The Autodesk Navisworks User Interface
- · Configuring Settings
- · Managing Files
- Setting Units

#### **Exploring the Navigation Tools in Navisworks**

- Using the Head-Up Display and Navigation Tools
- Cameras and Reference Views

### Selecting, Controlling, and Reviewing Objects

- · Selection Tools
- Selection Sets

## Measuring and Redlining

- Controlling the Visibility of Objects, Using the Gizmo, Managing Links
- The Appearance Profiler Window

#### **Viewpoints, Sections and Animations**

- · Working with Viewpoints
- Section Views, Animating Viewpoints

#### Timeliner

· Working with Timeliner

#### **Working with Animator and Scripter**

- · Working with Animator
- Working with Scripter

#### Quantification

· Quantification Workbook Window

#### **Clash Detection**

- · Working with Clash Detective
- · Managing Clash Tests

#### **Autodesk Rendering**

- Understanding the Autodesk Rendering Window
- Mapping, Lighting, Environments and Rendering Using Autodesk Graphics

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



## Autodesk Navisworks Simulate 2017

**Navisworks Simulate 2017 The Complete Guide** is designed to give you a solid understanding of Navisworks Simulate features and capabilities, from the basics through to advanced components. Navisworks project review software enables architecture, engineering, and construction professionals to holistically review integrated models and data with stakeholders to gain better control over project outcomes.

## User's prerequisites

You don't need any previous experience with Autodesk® Navisworks to take this course.

#### **Course Outline**

#### **Introduction to Autodesk Navisworks**

- The Autodesk Navisworks User Interface
- Configuring Settings
- · Managing Files
- Setting Units

#### **Exploring the Navigation Tools in Navisworks**

- Using the Head-Up Display and Navigation Tools
- · Cameras and Reference Views

#### Selecting, Controlling, and Reviewing Objects

- · Selection Tools
- Selection Sets

#### Measuring and Redlining

- Controlling the Visibility of Objects, Using the Gizmo, Managing Links
- The Appearance Profiler Window

#### **Viewpoints, Sections and Animations**

- · Working with Viewpoints
- · Section Views, Animating Viewpoints

#### Timeliner

· Working with Timeliner

#### **Working with Animator and Scripter**

- · Working with Animator
- Working with Scripter

## Quantification

· Ouantification Workbook Window

#### **Autodesk Rendering**

- · Understanding the Autodesk Rendering Window
- Mapping, Lighting, Environments and Rendering Using Autodesk Graphics

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# Autodesk Revit Advanced Concepts 2017

**Autodesk Revit Advanced Concepts 2017 The Complete Guide** is designed to give you a solid understanding of Revit and its advanced concepts. It emphasizes on construction modeling and assemblies techniques, design options, presentation views, and scheduling and tags. Also, the course covers the various stages involved in conceptual design and projects and setting management.

Revit Advanced provides tools specific to structural design for buildings and infrastructure projects. This course is specially meant for professionals in structural engineering, civil engineering and allied fields in the building industry. It helps them improve multidiscipline coordination by using crucial information from architectural and engineering files, whether from Revit models or from 2D file formats, delivering a more reliable model for more efficient and more accurate design and documentation.

## User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

## **Course Outline**

#### New for 2017

- Revit Multi-Disciplinary Improvements
- Revit Structure Improvements

### **Construction Modeling**

- · Construction Modeling
- Assemblies

#### Phases and Design

- · Phases and Design
- · Design Options

#### **Site Tools and Design Analysis**

- Site Tools
- · Design Analysis

#### **Presentation Views**

- · Presentation Views
- · Using Decals and Shadows

#### **Schedules and Tags**

- Tags
- Schedules

#### **View Graphics**

- Visibility
- Overrides

#### Renderings and Walkthrough

- · Sun Settings
- Rendering

## **Project and Setting Management**

- Organization
- · Project Management
- Settings Management

#### Walls and Curtain Walls.

- · Curtain Walls
- Walls

#### Conceptual Design

- Conceptual Mass
- Forms
- · Divided Paths and Surface
- Mass Elements

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## Autodesk Revit Architecture 2017

**Autodesk Revit Architecture 2017 The Complete Guide** is designed to give you a solid understanding of Revit Architecture features and capabilities from the basics through to advanced components. You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning this powerful, sophisticated building information modeling (BIM) software that has transformed the architectural design industry. It is the perfect introduction to the powerful software for architects, designers, and students.

## User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

#### **Course Outline**

#### **Introduction to Autodesk Revit Architecture 2017**

- · User Interface Tour
- Browsers, Bars, Palettes and Windows
- · Revit Architecture Help

#### **Starting an Architectural Project**

- · Starting a New Architectural Project
- · Navigation Tools
- · Configuring Global Settings

#### **Creating Walls**

- Creating Architectural Walls
- Creating Architectural Walls II

#### **Using Basic Building Components-I**

- · Adding Doors
- · Adding Window and Wall Openings

### **Using the Editing Tools**

- Working with Selection Sets
- Editing Tools
- · Editing Tools II
- Grouping Elements
- Retrieving Information about Elements

### **Working with Datum Planes and Creating Standard Views**

- · Working with Levels
- Working Grids
- Working with Reference Planes and Work Planes
- Controlling the Display of Elements
- · Working with Project Views

#### **Using Basic Building Components-II**

- · Creating Floors
- · Creating Roofs
- · Shape Editing Tools
- Creating Ceilings
- Adding Rooms

#### **Using Basic Building Components-III**

- Working with Components
- Adding Stairs
- · Adding Railings and Ramps
- · Creating Curtain Walls

#### **Adding Site Features**

- · Working with Site Features
- Property Lines and Building Pads
- Adding Site Components

#### **Using Massing Tools**

- Understanding Massing Concepts
- · Creating Massing Geometry in the Family Editor
- · Editing Massing Geometry in the Family Editor
- Massing in the Conceptual Design Environment
- Creating Massing Geometry in a Project
- · Creating Building Elements from Massing Geometry
- · Creating Families

### **Adding Annotations and Dimensions**

- · Adding Tags
- Room Tags
- Keynotes
- Adding Symbols and Dimensions
- · Dimensioning Terminology and Dimensioning Tools
- Adding Alternate Dimension Units and Spot Dimensions

## **Creating Project Details and Schedules**

- Project Detailing in Autodesk Revit Architecture
- Crop Regions, Fill Patterns, and Detail Components
- Adding Text Notes
- Creating Drafting Views
- Revision Clouds
- Working with Schedules

## **Creating Drawing Sheets and Plotting**

- Creating Drawing Sheets
- · Creating Duplicate Dependent Views
- Printing in Revit Architecture

#### **Creating 3D Views**

- Three Dimensional (3D Views)
- Dynamically Viewing Models with Navigation Tools
- · Orienting a 3D View
- Generating Perspective Views
- Using a Section Box

#### **Rendering Views and Creating Walkthroughs**

- · Rendering in Revit Architecture
- · Working with Materials
- · Lights, Decals, and Entourage
- Rendering Settings
- · Creating a Walkthrough
- · Autodesk 360 | Rendering

#### **Using Advanced Features**

- · Creating Structural Components
- Generating Multiple Design Options
- Using Area Analysis Tools
- · Masking Regions
- · Creating Displaced Views
- Color Schemes
- · Working With Project Phasing Tools

#### **Using Advanced Features II**

- Workingsharing Concepts
- Elements Families, Browsers, Generating Shadows
- Creating Solar Studies
- · Working with Point Clouds
- · Revit Architecture Interoperability
- Linking Building Models and Sharing Coordinates
- · Working with Linked Models



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## Autodesk Revit Families 2017

**Autodesk Revit Families 2017 The Complete Guide** is designed to give you a thorough introduction to Revit Families, from basic 2D Symbols to complex 3D Nested Families. This course includes text, images, audio, video, quizzes and practical Let Me Try exercises to accommodate all learning styles.

Through the use of Revit Families, engineers, designers, architects, and CAD specialists can create basic elements for a construction site; building components such as windows, doors, fixtures and furniture, and custom components specific to any project.

## User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

#### **Course Outline**

#### **Introduction to Revit Families**

· What is a Revit Family

#### **Family Templates**

· An Introduction to Family Templates

### The 2D Family Editor Environment

• The 2D Menu Ribbon

#### The 3D Family Editor Environment

• The 3D Menu Ribbon

#### **Parametric Framework**

- · Reference Planes: The Skeleton of Parametric Framework
- · Dimensions and Labels

## **Creating Family Elements**

· Family Element Commands

#### **Moving Beyond The Basics**

• More Advanced Options

#### **Managing Revit Families**

· Managing Revit Families

#### **Bonus Project Exercises**

· Bonus Exercises for You to Try

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## Autodesk Revit MEP 2017

**Autodesk Revit MEP 2017 The Complete Guide** is designed to give you a solid understanding of Revit MEP features and capabilities, from navigating the interface to the more advanced subjects. This course includes text, images, audio, video, quizzes and practical Let Me Try exercises to accommodate all learning styles.

Autodesk Revit MEP has been created for engineers, designers, architects and CADD technicians; allowing them to design, document, and analyze building information for mechanical, electrical, and plumbing disciplines. This version brings new and exciting features. like Schedules and Fabrication.

### User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

#### **Course Outline**

#### **New For Revit - Multidiscipline**

- · User Interface and Workflow
- Text Enhancements
- Schedules

#### **New for Revit MEP**

• Fabrication

#### **Introduction to Autodesk Revit MEP**

- · Introducing the Autodesk Revit MEP User Interface
- Understanding the Interface, Getting Help

## **Getting Started with an MEP Project**

- · Starting a New Project in Revit MEP
- · Linking Revit Models and Sharing Coordinates
- The Snaps Tool, The Options Dialogue Box

#### Creating Datums, Project Views, and Building Envelopes

- · Working with Levels
- · Working with Grids
- Understanding Wall Types
- · Working with Walls, Floors, and Ceilings, Adding Rooms

#### Spacing, Zones, and Cooling and Heating Load Analysis

- Creating Spaces
- Color Schemes, Working with Zones

#### **Creating a Mechanical System**

- Understanding HVAC Systems
- · Generating HVAC System Layouts

#### **Creating an Electrical System**

- · Understanding Electrical Systems
- · Adding Power and System Devices

## **Creating a Plumbing System**

- Understanding Plumbing Systems
- · Working with Plumbing Systems

### **Creating a Fire Protection System**

- Understanding Fire Protection Systems
- Designing the Fire Protection System

### **Creating Construction Documents**

- · Dimensioning
- · Modifying Dimensions, Tags
- Creating Detail Views, Adding Sheets

## **Creating Families and Worksharing**

- Understanding Massing Concepts
- · Editing a Massing Geometry
- Creating Masses in the Conceptual Design Environment
- Worksharing Concepts

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



## Autodesk Revit Structure 2017

**Autodesk Revit Structure 2017 The Complete Guide** is designed to give you a solid understanding of Revit Structure features and capabilities, from the basics through advanced and complex 3D modeling components.

This course emphasizes on physical modeling, analytical modeling, rebar modeling, and quantity scheduling. Also, the course covers the various stages involved in analyzing the model in Robot Structural Analysis software. This course is specially meant for professionals and students in structural engineering, civil engineering, and allied fields in the building industry.

## User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

#### **Course Outline**

#### **New for Revit Structure 2017**

- Revit Multi-Disciplinary Improvements
- Revit Structure Improvements

#### **Introduction to Autodesk Revit Structure**

- · Basic Concepts and Principles
- The Revit Structure User Interface
- Building Information Modeling and Revit Structure, Getting Heln

#### **Getting Started with a Structural Project**

- Starting a New Structural Project
- · Snaps Tool, Opening, Saving and Closing a Project
- · Options Dialog Box

#### Setting up a Structural Project

- · Creating Project Templates
- Using Levels
- · Using Grids
- Working with Reference Planes

#### **Structural Columns and Walls**

- · Structural Columns
- Structural Walls

#### Foundations, Beams, Floors, and Open Web Joists

- · Understanding Foundations
- · Adding Foundations
- Structural Floors
- · Beams and Open Web Joists

#### **Editing Tools**

- · Creating Selection Sets
- · Moving and Copying
- · Rotating, Mirroring and Arraying
- · Additional Editing Tools, Creating Groups

### **Documenting Models and Creating Families**

- Dimensioning
- · Adding Text and Tags
- · Creating Families

#### Standard Views, Details, and Schedules

- · Standard Views
- Callout Views
- · Drafting Details
- Graphical Column Schedules

## 3D Views, Sheets, Analysis, Reinforcements, and Massing

- 3D Views, Generating Shadows and Solar Studies
- · Working with Sheets
- Understanding the Analytical Model
- · Working with Analytical Models
- Adding Reinforcements, Linking Building Models
- · Introducing Massing
- · Editing Massing Geometry
- · Creating Building Elements from Massing Geometry

### **Linking Revit Models with Robot Structural Analysis**

• Linking Revit Models with Robot Structural Analysis

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## Autodesk Revit Structure Advanced 2017

**Autodesk Revit Structure Advanced 2017 The Complete Guide** is designed to give you a solid understanding of Revit Structure 2017 and its advanced features. It emphasizes on family concepts and techniques, foundation modeling, reinforcements, and structural column families. Also, the course covers the various stages involved in structural analysis and project collaboration.

Autodesk Revit Structure provides tools specific to structural design for buildings and infrastructure projects. This course is specially meant for professionals and students in structural engineering, civil engineering and allied fields in the building industry; it helps them improve multidiscipline coordination of structural design documentation by minimizing errors, and enhancing project team collaboration.

## User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

#### **Course Outline**

#### New for 2017

- · Revit Multi-Disciplinary Improvements
- Revit Structure Improvements

#### **Setting Up the Revit Structure Interface**

- · Revit Structure Interface
- Setting up Revit Structure File Locations

#### **Family Concepts and Techniques**

- · Family Types
- Adding to the Family

## **Creating Custom Families**

- · Creating a Composite Metal Deck Family
- · Creating a Tapered Concrete Column Family

#### **Creating Trusses**

- Truss Techniques and Concepts
- · Finishing the Truss Family

#### **Using Trusses in Projects**

- · Adding a Truss to a Project
- Attaching a Truss to a Roof or Slab in a Project

#### **Creating Structural Walls and Floors**

- Architectural Walls and Structural Walls
- Structural Floor Placement and Options
- Using Structural Beam Systems

#### **Creating Foundations**

- · Isolated and Wall Foundations
- Slab and Floor Slab Foundations

#### Reinforcement

- · Rebar and Fabric Settings
- · Reinforcement Settings

## **Structural Column Families**

- Setting Up a Structural Column Family
- · Finishing Off the Family Geometry

## **Creating Specific Family Types**

- Typical Concrete Corbelling Profile
- Typical Annotation Arrow Symbol

#### **Structural Analysis**

- Preparing Projects for Structural Analysis
- · Creating Analytical Views

#### **Project Team Collaboration**

- · Introduction to Worksets
- Working with Worksets

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## Autodesk Robot Structural 2017

**Robot Structural 2017 The Complete Guide** is designed to give you a solid understanding of Robot Structural Analysis, its features and capabilities; from the basics to the advanced components. This course is designed using all learning styles through text, audio, video, interactivity, quizzes and practical Let Me Try exercises.

Robot Structural Analysis Professional software gives structural engineers advanced building simulation and analysis capabilities for large, complex structures. The software

offers a smooth workflow, enabling engineers to more quickly perform simulaAon and analysis of a variety of structures. It also provides engineers with advanced BIM-integrated analysis and design tools to understand the behavior of any structure type and verify code compliance.

## User's prerequisites

You don't need any previous experience with Autodesk® Robot Structural Analysis Professional to take this course.

#### **Course Outline**

#### **Welcome to Robot Structural Analysis Professional**

- The User Interface and Viewing Your Models
- Working with Objects
- Running Your First Analysis

#### **Projects and Preferences**

- Creating Projects
- Preferences
- Customization

#### **Model Preparation I**

- Model Preparation
- · Adding Structural Objects

#### **Model Preparation II**

- · Additional Tools
- · Editing Tools

#### **Setting Up the Analysis**

- · Applying Loads
- · Generate the Mesh

#### **Analysis and Exploring the Results**

- Run the Analysis
- Analysis Results
- Printouts

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## Autodesk Vault Basic 2017

Autodesk Vault is a data management tool integrated with a number of Autodesk software products including AutoCAD and Revit and Inventor. It helps design teams track work in progress and maintain version control in multi-user environments. It allows them to organize and reuse designs by consolidating product information and reducing the need to re-create designs from scratch.

## User's prerequisites

You don't need any previous experience with Autodesk® Vault to take this course.

#### **Course Outline**

## New for Vault – Security and Administration Updates

· Security Updates Administration Change

#### **New for Vault - Usability Enhancements**

· Usability Enhancements

#### **Using Autodesk Vault**

- · Introduction to Autodesk Vault
- · Working with Files

#### **Working with Microsoft Offce**

· Working with Microsoft Office

## Working with AutoCAD

· Working with AutoCAD

#### Working with Inventor

- · Working with Inventor
- Other Inventor Vault Add-in Tools

## **Working with Files**

- · Data Management
- · Data Management (Part 2)

#### Vault Administration

· Vault Administration

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## Autodesk Vault Professional 2017

Autodesk Vault Professional is a data management tool integrated with a number of Autodesk software products including AutoCAD and Revit and Inventor. It helps design teams track work in progress and maintain version control in multi-user environments. It allows them to organize and reuse designs by consolidating product information and reducing the need to re-create designs from scratch.

## User's prerequisites

You don't need any previous experience with Autodesk® Vault to take this course.

#### **Course Outline**

## **New for Vault - Security and Administration Updates**

• Security Updates Administration Changes

#### **New for Vault - Usability Enhancements**

· Usability Enhancements

#### **Using Autodesk Vault**

Introduction to Autodesk Vault Working with Files

#### **Working with Microsoft Office**

· Working with Microsoft Office

#### Working with AutoCAD

· Working with AutoCAD

#### **Working with Inventor**

- · Working with Inventor
- · Other Inventor Vault Add-in Tools

#### **Working with Files**

- · Data Management
- Data Management (Part 2)

## **Vault Administration**

· Vault Administration

#### **Extended Tools and Workflows**

• Data Management Additional Vault Tools

#### Behaviors

· Vault Behaviors Working with Behaviors

#### **Behavior Administration**

- · Configuring Behaviors
- Reports
- Reporting

#### **Custom Objects**

· Working with Custom Objects

#### Items

· The Item Master Files and Items Bills of Materials

### Item Behaviors

- · Item Lifecycles
- Item Administration

#### **Change Orders**

· Vault Change Orders

#### **Sharing with Others**

- · Vault Web Client
- · Autodesk Buzzsaw and PLM 360

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# Autodesk Vault Workgroup 2017

Autodesk Vault Workgroup is a data management tool integrated with a number of Autodesk software products including AutoCAD and Revit and Inventor. It helps design teams track work in progress and maintain version control in multi-user environments. It allows them to organize and reuse designs by consolidating product information and reducing the need to re-create designs from scratch.

## User's prerequisites

You don't need any previous experience with Autodesk® Vault to take this course.

#### **Course Outline**

#### **New for Vault - Security and Administration Updates**

- · Security Updates
- · Administration Changes

#### **New for Vault - Usability Enhancements**

· Usability Enhancements

#### **Using Autodesk Vault**

- Introduction to Autodesk Vault
- Working with Files

## **Working with Microsoft Offce**

· Working with Microsoft Office

## **Working with AutoCAD**

· Working with AutoCAD

## **Working with Inventor**

- · Working with Inventor
- · Other Inventor Vault Add-in Tools

#### **Working with Files**

- · Data Management
- Data Management (Part 2)

#### **Vault Administration**

Vault Administration

#### **Extended Tools and Workflows**

- · Data Management
- Additional Vault Tools

#### **Behaviors**

- Vault Behaviors
- · Working with Behaviors

## **Behavior Administration**

Configuring Behaviors

#### Reports

· Reporting

#### **Custom Objects**

· Working with Custom Objects

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# AutoCAD 2D Drafting and Annotation 2016

**AutoCAD 2D Drafting and Annotation 2016 The Complete Guide** is designed to give you a solid understanding of AutoCAD features and capabilities. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning 2D drawing skills, editing entities, working with splines and polylines, using layers, creating and editing text, dimensioning, and creating blocks.

## User's prerequisites

You don't need any previous experience with AutoCAD® to take this course.

#### **Course Outline**

#### **New For AutoCAD 2016**

- User Interface & Configuration Changes
- · Documentation and Design Enhancements

#### Introduction to AutoCAD

- Introducing AutoCAD 2016
- Using Tools in AutoCAD
- · Working With AutoCAD Files
- Autodesk 360

#### **Getting Started with AutoCAD**

- · Getting Started with AutoCAD
- Coordinate Systems
- AutoCAD Workspaces
- AutoCAD File Settings

#### Starting with Sketching

- · Starting with Basic Sketching
- · Drawing Irregular Objects
- Drawing Various Arcs

### **Working with Drawing Aids**

- Working with Drawing Aids
- Object Properties
- Working With Object Snaps
- · Draft Settings Dialog Box
- Using AutoTracking

### **Editing Sketched Objects - I**

- Creating a Selection Set
- Copying and Pasting Sketched Objects
- Editing Sketched Objects
- · Arraying and Mirroring Sketched Objects
- Separating and Joining Sketched Objects

### **Editing Sketched Objects - II**

- · Modifying Grips in AutoCAD
- Properties of Sketched Objects
- DesignCenter and AutoDesk Seek
- Making Inquiries about Objects and Drawings
- Manipulating the View
- Understanding the Concept of Sheet Sets

#### **Creating Text and Tables**

- · Annotative Objects
- · Creating Text
- Creating Multiline Text
- Using Tables
- Text Styles

## Basic Dimensioning, Geometric Dimensioning, and Tolerancing

- · Dimensioning Terms and Tools
- Selecting Dimension Tools
- Creating Specialized Dimensions
- Working with True Associative Dimensions
- · Geometric Dimensioning

#### **Editing Dimensions**

- Editing Dimensions Using Editing Tools
- Editing Dimensions Using Editing Tools Continued

## Dimension Styles, Multileader Styles, and System Variables

- Dimension Styles
- · Dimension Style Families
- Dimension Text and Units

#### **Adding Constraints to Sketches**

- Constraints in a Sketch
- · Applying and Editing Constraints

#### **Hatching Drawings**

- · Hatching Basics
- · Modifying Hatch Properties

## Model Space Viewports, Paper Space Viewports, and Layouts

- Model Space Viewports
- Viewport Options

#### **Plotting Drawings**

- Plotting Drawings In AutoCAD
- Plot Styles

#### **Template Drawings**

- Understanding Templates
- Customizing Templates

#### **Working with Blocks**

- · Working with Blocks
- · Changing Blocks
- · Inserting and Modifying Blocks
- Simplifying Blocks

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## AutoCAD 3D 2016

**AutoCAD 3D 2016 The Complete Guide** is designed to give you a solid understanding of AutoCAD features and capabilities from basic through to advanced and complex 3D modeling components. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples. You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning about the UCS, Solid, Surface and Mesh modelling and editingcomponents.

Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples. You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning about the UCS, Solid, Surface and Mesh modelling and editing

## User's prerequisites

You don't need any previous experience with AutoCAD® to take this course.

#### **Course Outline**

#### What's New in AutoCAD 2016

- User Interface & Configuration Changes
- · Documentation and Design Enhancements
- 3D Updates
- Point Cloud Improvements

### The User Coordinate System

- Understanding Coordinate Systems
- Defining the New UCS
- · Managing the UCS Through the Dialog Box

#### **Getting Started with 3D**

- Understanding 3D Concepts
- Changing the Viewpoint to View 3D Models
- In-Canvas Viewport Control
- 3D Coordinate Systems
- Tools for Creating and Editing 3D Objects
- Interactive Viewing Tools for 3D Objects

## **Creating Solid Models**

- · Creating Solid Models
- · Modifying the Visual Styles of Solids
- Controlling the Settings of Edges
- Creating Complex Solid Models
- Dynamic UCS
- · Creating Different Solids

## Editing 3D Objects-I

- · Filleting Solid Models
- Rotating Solid Models in 3D Space
- Mirroring Solid Models in 3D Space
- Aligning Solid Models
- · Point Cloud

## Editing 3D Objects-II

- · Editing 3D Objects-II
- Generating a Section by Defining a Section Plane
- Generating 2D and 3D Sections
- · Solid History
- · Drawing Views
- · Creating Flatshot

## Surface Modeling

- · Understanding Surface Modeling
- · Creating Surface by Using Profiles
- Creating Surface from other Surfaces
- Editing Surfaces
- Editing the NURBS Surfaces
- Performing Surface Analysis

## **Mesh Modeling**

- · Introduction to Mesh Modeling
- Creating Surface Meshes

- · Modifying Mesh Objects
- · Editing Mesh Faces
- Converting Mesh Objects
- · Working with Gizmos

#### **Rendering and Animating Designs**

- Understanding the Concept of Rendering
- Basic Rendering
- · Adding Lights to the Design
- Modifying Lights
- Controlling the Rendering Environment
- · Plotting Rendered Images

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## AutoCAD Advanced 2016

**AutoCAD Advanced 2016 The Complete Guide** is designed to give you a solid understanding of AutoCAD features and capabilities. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

In this course you'll learn a number of advanced concepts from working with attributed blocks and external references, data exchange, advanced hatch and linetype creation, and all the way to isometric and technical drawing concepts.

To get the most out of this course, we strongly recommend you review every topic within the course, and use all the learning styles to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real world, Let Me Try examples.

## User's prerequisites

You don't need any previous experience with AutoCAD® to take this course.

#### **Course Outline**

#### **New For AutoCAD 2016**

- User Interface & Configuration Changes
- · Documentation and Design Enhancements
- 3D Updates
- · Point Cloud Improvements

#### **Defining Block Attributes**

- · Understanding Attributes
- Editing Block Attributes
- · Managing Attributes
- Extracting Attributes

## **Understanding External References**

- · Understanding External References
- · External References Palette
- Attaching Files to a Drawing
- · Additional Xref Tools

## **Working with Advanced Drawing Options**

- Multiline
- Revision Clouds, Wipeouts and NURBS

## **Grouping and Advanced Editing of Sketched Objects**

- Grouping Sketched Objects
- Changing Properties of an Object
- Advanced Editing of Sketched Objects
- Miscellaneous Tools

### **Working with Data Exchange**

- Understanding the Concept of Data Exchange in AutoCAD
- Other Data Exchange Formats
- · Raster Images
- · Editing Raster Images
- Miscellaneous File Tools
- Object Linking and Embedding (OLE)

#### **AutoCAD on Internet**

- AutoCAD on Internet
- Drawings on the Internet
- Using Hyperlinks with AutoCAD
- · The Drawing Web Format
- · Export to DWF Files

#### **Accessing External Databases**

- · Understanding Databases
- · Creating Links with Graphical Objects
- AutoCAD SQL Environment (ASE)

## **Script Files and Slide Shows**

- · What are Script Files?
- What is a Slide Show?

## **Creating Linetypes and Hatch Patterns**

- Creating Linetypes and Hatch Patterns
- Alternate Linetypes
- · How Hatches Work
- · Hatch Patterns with Dashes and Dots

#### Customizing the acad.pgp File

- · Customizing the acad.pgp File
- Reinitializing the acad.pgp File
- Sections of the acad.pgp File

## **Technical Drawing with AutoCAD**

- · Detail Drawing, Assembly Drawing, and Bill of Materials
- Auxiliary Views
- Sectional Views
- Dimensioning
- · Introduction to Technical Drawing

## **Isometric Drawings**

- Understanding Isometric Drawings
- Setting the Isometric Grip and Snap
- Drawing Isometric Circles
- · Creating Fillets, Dimensioning Objects and Isometric Text

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## AutoCAD Architecture 2016

AutoCAD Architecture 2016 is a specialized "flavor" of AutoCAD, with tools and features designed specifically for architectural design and documentation. Architectural drafting and documentation is more efficient with the software's intuitive environment and tools built specifically for architects.

**AutoCAD Architecture 2016 Complete Guide** is designed to give you a solid understanding of AutoCAD Architecture features and capabilities from the basics through to advanced components. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

## User's prerequisites

You don't need any previous experience with AutoCAD® Architecture to take this course.

## **Course Outline**

#### **New for AutoCAD 2016**

- User Interface & Configuration Changes
- Documentation and Design Enhancements
- 3D Updates
- · Point Cloud Improvements

## New for AutoCAD Architecture 2016

New Features for AutoCAD Architecture 2016

#### **Workflow and User Interface**

- The AutoCAD Architecture User Interface
- · Project Overview
- · Navigating Your Models
- · Working with Your Models
- · Working with the Help

#### Walls

- Creating Walls
- Further Modification
- Wall Styles
- · Curtain Walls
- Additional Features

#### **Designing with Architectural Objects**

- Working with Architectural Objects
- · Doors & Windows
- · Slabs, Roofs, Beams, and Columns
- Stairs & Railings

## **Project Management**

- · Creating a New Project
- Creating the First Floor
- · Working with Projects
- Standards

#### **Creating Conceptual Models**

- · Creating Mass Elements and Mass Groups
- Slices and Napkin Sketches

### Documentation

- Documentation
- · Creating Views
- Tags & Schedules
- · Sheet Sets
- Multi View Blocks

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## AutoCAD Civil 3D 2016

AutoCAD Civil 3D software is a Building Information Modeling (BIM) solution for civil engineering design and documentation. AutoCAD Civil 3D helps civil engineering professionals working on transportation, land development, and water projects stay coordinated and more easily and efficiently explore design options, analyze project performance, and deliver consistent, higher quality documentation — all within a familiar AutoCAD® environment. Perform geospatial analysis and extend Civil 3D model data for storm water analysis and interactive 3D simulations and visualizations. You can also generate quantity takeoff information and support automated machine guidance during construction. Civil 3D helps you gain the competitive advantage of BIM to deliver more innovative project solutions.

**AutoCAD Civil 3D 2016 Complete Guide** is designed to give you a solid understanding of Civil 3D features and capabilities from the basics through to advanced components. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes to practical "Let Me Try" examples.

## User's prerequisites

You don't need any previous experience with AutoCAD® Civil 3D to take this course.

#### **Course Outline**

#### New for AutoCAD Civil 3D 2016

New Features for Civil 3D 2016

#### Introduction to AutoCAD Civil 3D

- Introduction to AutoCAD Civil 3D
- · Getting Started in Civil 3D

#### **Working with Points**

- · Working with Points
- · Point Settings and Styles
- Editing Points
- · Point Groups

## **Working with Surfaces**

- Working with Surfaces
- Editing Surfaces
- Working with Surface Styles
- · Surface Tools

## **Surface Volumes and Analysis**

- · Surface volumes
- Analysis
- Tables and Labels

## Alignments

- Alignments
- Tools
- · Checks and Criteria
- Styles and Tabs
- · Alignment Labels and Tables
- Superelevation

#### **Working with Profiles**

- · Working with Profiles
- · More on Profiles
- · Profile View Styles
- Band Sets

#### **Working with Assemblies and Subassemblies**

- · Working with Assemblies and Subassemblies
- · Codes and Styles
- Subassemblies
- Working with Corridors and Parcels
- · Working with Corridors
- Editing Corridors
- Introduction to Parcels

## Sample Lines, Sections, and Quantity Takeoffs

- Sample Lines, Sections and Quantity Takeoffs
- Sections
- · Quantity Take-offs

#### **Feature Lines and Grading**

- · Feature Lines
- Grading

#### **Pipe Networks**

- · Pipe Networks
- Part Rules and Structure Rules
- Pipe Networks and Network Properties
- Labels, Tables and Checks

#### Pressure Networks

- Pressure Networks
- · Pressure Network Properties
- · Labels, Tables and Checks

#### **Working with Plan Production Tools and Data Shortcuts**

- Working with Plan Production Tools and Data Shortcuts
- · Data Shortcuts and Reference

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# AutoCAD Civil 3D Advanced Concepts 2016

AutoCAD Civil 3D software is a civil design and documentation solution that supports Building Information Modeling (BIM) workflows. Using AutoCAD Civil 3D, infrastructure professionals can better understand project performance, maintain more consistent data and processes, and respond faster to change.

**AutoCAD Civil 3D Advanced Concepts 2016 The Complete Guide** is designed to give you a greater understanding of additional Civil 3D features ranging from Surface Analysis methods to using Transparent Commands. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical Let Me Try examples.

## User's prerequisites

You don't need any previous experience with AutoCAD® Civil 3D to take this course.

## **Course Outline**

#### New for AutoCAD 2016

- User Interface & Configuration Changes
- · Documentation and Design Enhancements
- 3D Updates
- Point Cloud Improvements

#### New for Civil 3D 2016

· New Features for Civil 3D

#### **Survey Database**

· Survey Database

#### **Points**

Points

#### **Point Clouds**

Point Clouds

## **Surface Analysis**

· Surface Analysis

#### Alignments

Alignments

#### Assemblies

Assemblies

## Corridors

Corridors

#### Vehicle Tracking

· Vehicle Tracking

### **Transparent Commands**

• Transparent Commands

## Parcels

hundreds of real-world, Let Me Try examples.

Parcels

#### Suite Interoperability

Suite Interoperability

To get the most out of this course, we strongly recommend you review every topic .within

the course and take advantage of the different tools and activities to help to ensure you

retain the important information within. We also encourage you to take all the progress

tests to ensure you have retained the knowledge, and most importantly practice with the

## Storm Sewer Analysis (SSA)

• Storm Sewer Analysis (SSA)

## **HEC-RAS**

HEC-RAS

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## AutoCAD Electrical 2016

**AutoCAD Electrical 2016 Complete Guide** is designed to give you a solid understanding of AutoCAD Electrical 2016 features and capabilities. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning the steps to wire components together, editing Ladder Diagrams, working with connectors and circuits, using Wiring Diagrams, creating and editing Reports, and creating your own symbols to use in the drawings

## User's prerequisites

You don't need any previous experience with AutoCAD® Electrical to take this course.

#### **Course Outline**

#### **Introduction to AutoCAD Electrical**

- Getting StartedInterface Components
- Invoking Commands
- · Saving the Work
- Workspaces
- Getting Help

## **Working with Projects and Drawings**

- · Creating a New Project
- · Working with Drawings
- Working with Project Drawings
- Copying/Deleting a Project
- · Other Options in the Project Manager

## **Working with Wires**

- · Inserting Wires into a Drawing
- Modifying Wires
- · Wire Types
- Wire Numbers
- · Inserting Wire Markers/Labels in a Drawing
- Troubleshooting Wires

## **Creating Ladders**

- · Inserting a New Ladder
- Grid Labels

#### **Schematic Components**

- Inserting Schematic Components
- · Inserting Components Using the Catalog Browser
- Annotating and Editing the Symbols
- Assigning Catalog Information and Editing the Catalog Database
- Inserting Components from the Equipment List
- Inserting Components from Panel Lists
- Swapping and Updating Blocks

## **Schematic Editing**

- · Changing Component Location
- Updating Components
- Auditing Drawings and Projects
- · Retagging Drawings
- Using Tools for Editing Attributes

## Connectors, Point-to-Point Wiring Diagrams, and Circuits

- · Inserting Connectors
- Editing Connectors
- Using Point-to-point Wiring Diagrams
- · Working with Circuits
- Building a Circuit
- Multiple Phase Circuits

#### **Panel Layouts**

- Creating Panel Layouts
- · Annotating and Editing Footprints
- Inserting Footprints
- Setting the Panel Drawing Configuration
- Adding Balloons to a Component
- Item Numbers, Nameplates and DIN Rail

### **Schematic and Panel Reports**

- · Generating Schematic Reports
- Report Generator Dialog Box
- · Changing Report Formats

#### **PLC Modules**

- Inserting Parametric PLC Modules
- Inserting Nonparametric PLC Modules
- · Editing a PLC Module
- Inserting Individual PLC IO Points
- Creating and Modifying Parametric PLC Modules
- Creating PLC I/O Wiring Diagrams

## Terminals

- Inserting Terminal Symbols
- Adding and Modifying Associations
- Selecting, Creating, Editing, and Inserting Terminal Strips
- · Terminal Tables
- Resequencing Terminal Numbers

## Settings, Configurations, Templates, and Plotting

- · Setting Project Properties
- · Setting Drawing Properties
- · Reference Files
- · Mapping the Title Block
- Updating Title Block Settings
- Creating Templates
- · Plotting the Project
- Project Task List

## **Creating Symbols**

- Creating Symbols
- · Naming Convention of Symbols
- · Customizing the Icon Menu
- · Miscellaneous Tools

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## AutoCAD LT 2016

**AutoCAD LT 2016 The Complete Guide** is designed to give you a solid understanding of AutoCAD LT features and capabilities. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

Use a condensed form of the AutoCAD Interface to assemble drawings or sketches. Use a workflow-based approach that mirrors the development of projects in the real world, learning 2D drawing skills, editing entities, working with splines and polylines, using layers, creating and editing text, dimensioning, and creating blocks.

To get the most out of this course, we strongly recommend you review every topic .within the course and take advantage of the different tools and activities to help to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real-world, Let Me Try examples.

## User's prerequisites

You don't need any previous experience with AutoCAD® LT to take this course.

#### **Course Outline**

#### New For AutoCAD LT 2016

- User Interface & Configuration Changes
- · Documentation and Design Enhancements

#### Introduction to AutoCAD LT

- Introducing AutoCAD LT
- Using Tools in AutoCAD LT
- Working With AutoCAD Files
- Autodesk 360

#### **Getting Started with AutoCAD LT**

- · Getting Started with AutoCAD LT
- Coordinate Systems
- AutoCAD LT Workspaces
- · AutoCAD File Settings

## **Starting with Sketching**

- Starting with Basic Sketching
- Drawing Various Arcs

## **Working with Drawing Aids**

- · Working with Drawing Aids
- Object Properties
- Working With Object Snaps
- Draft Settings Dialog Box
- · Using AutoTracking

## Editing Sketched Objects - I

- Creating a Selection Set
- Copying and Pasting Sketched Objects

#### · Editing Sketched Objects

- · Arraying and Mirroring Sketched Objects
- Separating and Joining Sketched Objects

## Editing Sketched Objects - II

- · Modifying Grips in AutoCAD LT
- Properties of Sketched Objects
- DesignCenter and AutoDesk Seek
- · Making Inquiries about Objects and Drawings
- · Manipulating the View
- Understanding the Concept of Sheet Sets

### **Creating Text and Tables**

- · Annotative Objects
- · Creating Text
- · Creating Multiline Text
- Using Tables
- Text Styles

## Basic Dimensioning, Geometric Dimensioning, and Tolerancing

- · Dimensioning Terms and Tools
- Selecting Dimension Tools
- Creating Specialized Dimensions
- Working with True Associative Dimensions

#### **Editing Dimensions**

- · Editing Dimensions Using Editing Tools
- Editing Dimensions Using Editing Tools Continued

## Dimension Styles, Multileader Styles, and System Variables

- · Dimension Styles
- · Dimension Style Families
- · Dimension Text and Units

#### **Hatching Drawings**

- · Hatching Basics
- · Modifying Hatch Properties

## Model Space Viewports, Paper Space Viewports, and Layouts

- Model Space Viewports
- Viewport Options

#### **Plotting Drawings**

- · Plotting Drawings In AutoCAD
- Plot Styles

## **Template Drawings**

- · Understanding Templates
- Customizing Templates

## Working with Blocks

- · Working with Blocks
- · Changing Blocks
- · Inserting and Modifying Blocks
- · Simplifying Blocks

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# AutoCAD Map 3D 2016

AutoCAD Map 3D software provides access to GIS and mapping data to support planning, design, and data management. Intelligent models and CAD tools help you to apply regional and discipline-specific standards. Integration of GIS data with your organization helps to improve quality, productivity, and asset management.

**AutoCAD Map 3D 2016 The Complete Guide** is designed to give you a solid understanding of AutoCAD Map 3D features and capabilities. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning to model and document process plants, generate and share isometrics, orthographics, and materials reports.

To get the most out of this course, we strongly recommend you review every topic .within the course and take advantage of the different tools and activities to help to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real-world, Let Me Try examples.

## User's prerequisites

You don't need any previous experience with AutoCAD® Map 3D to take this course.

#### **Course Outline**

#### **Introduction to AutoCAD Map 3D**

- Introduction to AutoCAD Map 3D
- Starting AutoCAD Map 3D and Workspaces
- AutoCAD Map 3D Interface And Dialog Boxes

## **Getting Started with AutoCAD Map 3D**

- Getting Started with AutoCAD Map 3D
- Adding Data To The Project
- Data Outputs Methods
- Understanding the Concept of Sheet Sets

#### **Working with Basic Tools and Coordinate Systems**

- Using the Snap Functions in Map 3D and Working in the Ortho Mode
- Coordinate Reference System and User Coordinate System in AutoCAD

## **Working with Feature Data**

- Working with Feature Data
- · Feature Data and Creating Feature Data Store
- Creating A Feature Data
- · Enhancing Precision Using COGO Input Tools
- Editing Data in Feature Layer

#### **Styling and Querying Feature Data**

- Styling and Querying Feature Data and Thematic Layers
- · Styling The Feature Data

## Creating Object Data, and Attaching External Database and Query

- · Object Data
- · Attaching External Database
- Attaching a Drawing File, Querying an Attached Drawing and Editing an Object in an Attached Drawing

#### **Classifying Objects and Working with Classified Objects**

- Drawing Object Classification and Working with Classified Objects
- Displaying and Sharing the Metadata File

## Removing Digitization Errors and Working with Topologies Learning

- Drawing Cleanup and Applying Cleanup to Drawing Data
- Topology and Sliver Polygons
- Topology Query

### **Data Analysis**

- · Object Data Analysis
- Feature Data Analysis
- Topological Data Analysis

## **Working with Different Types of Data**

- Working with Different Types of Data and Live Maps (Bing Maps)
- Point Cloud Data
- · Viewing and Analyzing 3D Surfaces
- Attribute Data
- Industry Model

## **Editing A Map and Creating a Map Book**

- Editing A Map and Creating a Map Book
- Map Editing Tools
- Map Layout and Map Elements
- Map Book

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## AutoCAD Mechanical 2016

**AutoCAD Mechanical** is a specialized "flavor" of AutoCAD, with features designed specifically for mechanical / manufacturing design and documentation. This standards-based application provides mechanically focused content, geometry creation tools, and annotation features creating a more efficient environment for mechanical drafters and designers

To get the most out of this course, we strongly recommend you review every topic .within the course and take advantage of the different tools and activities to help to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real-world, Let Me Try examples.

## User's prerequisites

You don't need any previous experience with AutoCAD® Mechanical to take this course.

#### **Course Outline**

## **Introduction to AutoCAD Mechanical**

AutoCAD Mechanical

#### **Mechanical Drawing and Editing**

- · AutoCAD Mechanical Lines
- · Construction Lines Centerlines
- · Drawing and Editing Tools

#### Layers

· Working with Layers

#### Blocks, Libraries and Mechanical Content

- · Block and Libraries
- Mechanical Content Inserting Other Content Building Your Own Content

#### Structure

- Working with Mechanical Structure
- · Additional Structure Tools

## **Detailing the Drawing**

- · Dimensioning
- · Annotations and Detailing

#### Bill of Materials, Parts Lists, and Balloons

• Bill of Materials, Parts Lists, and Balloons

## **Preparing the Drawing for Printing**

- · Working with Model Space and Layouts
- Additional Tools

## **Data Exchange Between CAD Systems**

Importing Data and View Creation

## **Machinery Generators and Calcuators**

- · Generators and Standard Parts Tools
- Calculators

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## AutoCAD MEP 2016

**AutoCAD MEP 2016 The Complete Guide** is designed to give you a solid understanding of AutoCAD MEP features and capabilities - from the basics through to advanced and complex building systems. You will learn to create accurate drafts, designs and documents from within a familiar AutoCAD-based environment.

AutoCAD MEP enables the support of mechanical, electrical, and plumbing (MEP) systems throughout the building lifecycle. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

To get the most out of this course, we strongly recommend you review every topic within the course, and use all the learning styles to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real world, Let Me Try examples.

## User's prerequisites

You don't need any previous experience with AutoCAD® MEP to take this course.

#### **Course Outline**

#### **New for AutoCAD 2016**

- User Interface & Configuration Changes
- · Documentation and Design Enhancements
- 3D Updates
- · Point Cloud Improvements

#### **New Features For AutoCAD MEP 2016**

New Features For AutoCAD MEP

#### Introduction to AutoCAD MEP

- Introduction to AutoCAD MEP
- AutoCAD MEP User Interface
- Getting Started
- Saving Files
- · Opening Files
- Finding and Using AutoCAD MEP Help

## **Getting Started with AutoCAD MEP**

- Starting a Project
- Expanded Views on Projects
- · Spaces in AutoCAD MEP
- · Editing in AutoCAD MEP
- Workspaces and Settings

#### **Working with Architecture Workspace**

- · Walls and Wall Settings
- Creating Doors and Using Door Settings
- · Creating Windows and Window Settings
- Creating Roofs and Using Roof Settings
- Creating Stairs and Using Stair Settings
- Grids, Beams, Columns, and Braces and Editing in a File
- · Creating and Editing Primitives

#### Creating the HVAC System

- · Air Handling Equipment
- · Creating and Editing Ducts
- · Creating and Editing Duct Fittings

## **Creating and Editing Piping Systems**

- Creating Piping Systems
- · Laying and Editing Pipes
- Creating and Editing Pipe Fittings

#### **Creating Plumbing System**

- · Plumbing Fixtures and Equipment
- Plumbing Lines and Fixtures Properties

## **Creating Electrical System Layout**

- Creating and Editing Panels and Devices
- · Creating and Editing Wire and Conduits
- Creating and Editing Circuits

#### **Representation and Schedules**

- · Creating and Editing Views
- Creating and Editing Schedules
- Managing Cell Information

#### **Schematics**

· Working with Schematics

#### AutoCAD MEP Project Lecture

· AutoCAD MEP Project Lecture

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## AutoCAD P&ID 2016

**AutoCAD P&ID 2016 The Complete Guide** is designed to give you a solid understanding of AutoCAD P & ID features and capabilities. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning the AutoCAD P & ID interface, Managing the Project Files, working with data across multiple drawings, analyzing the Data, and editing a drawing and sharing it with multiple users.

User's prerequisites

You don't need any previous experience with AutoCAD® P&ID to take this course.

To get the most out of this course, we strongly recommend you review every topic .within the course and take advantage of the different tools and activities to help to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real-world, Let Me Try examples.

## **Course Outline**

#### **AutoCAD P&ID Environment**

· AutoCAD P&ID Environment

#### **Project and File Management**

· Project and File Management

## **Drawing Tasks**

• Drawing Tasks

#### **Off-Page Connectors**

· Off-Page Connectors

#### **Data Manager and Reports**

Data Manager and Reports

#### **Symbols**

Symbols

#### **Advanced Topics**

· Advanced Topics

### **Working with Others**

· Working with Others

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## AutoCAD Plant 3D 2016

**AutoCAD Plant 3D 2016 The Complete Guide** is designed to give you a solid understanding of AutoCAD Plant 3D features and capabilities. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning to model and document process plants, generate and share isometrics, orthographics, and materials reports.

To get the most out of this course, we strongly recommend you review every topic .within the course and take advantage of the different tools and activities to help to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real-world, Let Me Try examples.

## User's prerequisites

You don't need any previous experience with AutoCAD® Plant 3D to take this course.

#### **Course Outline**

## New For AutoCAD 2016

- User Interface & Configuration Changes
- · Documentation and Design Enhancements
- 3D Updates
- Point Cloud Improvements

#### Introduction to AutoCAD Plant 3D 2016

- Starting AutoCAD Plant 3D
- AutoCAD Plant 3D User Interface
- Different Workspaces and Invoking Commands in AutoCAD
   Plant 3D
- · Tool Palettes and Dialog Boxes
- · Creating Backup Files and Closing a Drawing
- Opening Drawings and Quitting Plant 3D
- AutoCAD Plant 3D Help

#### **Creating Projects and P&IDs**

- Introduction to Creating Projects and P&ID
- Designing a P&ID
- Validating the Drawing
- Editing the Drawing

#### **Creating Structures**

- Creating a Grid and Adding Members
- Creating Stairs
- Creating Railing
- Creating Ladder
- · Creating a Plate/Grate
- Creating Footing
- · Editing the Structural Members
- · Visibility Options
- Exchanging Data with Other Applications

## **Creating Equipment**

- · Creating Equipment
- · Placing Equipment in the Drawing
- · Creating a Customized Equipment
- · Modifying Equipment
- · Converting Solid Models into Equipment
- · Attaching and Detaching Objects from an Equipment
- · Adding Nozzles to a Customized Equipment
- · Adding Nozzles to a Converted Equipment
- · Modifying Nozzles

#### **Adding Specifications and Catalogs**

- Getting Started with AutoCAD Plant 3D Spec Editor and Creating a New Spec File
- · Adding and Editing Spec Sheets
- · Adding to and Editing Specs
- Working with the Catalog Editor
- · Modifying the Branch Table

### **Routing Pipes**

- Selecting a Spec and Working with the Spec Viewer
- · Routing a Pipe
- Creating Branches, Weld Connections and Autodesk Connection Points
- Adding Valves, Fittings and Pipe Supports

#### **Adding Valves and Fittings**

- · Pipe Supports
- Insulating a Pipe and Modifying the Pipe Components Using Grips

## **Creating Isometric Drawings**

- · Isometric Drawings
- · Creating a Quick or Production Isometric Drawing
- Placing Iso Messages and Annotations and Exporting a Component File
- · Configuring Isometric Drawing Settings

#### **Creating Orthographic Drawings**

- · Creating an Orthographic Drawing
- Using Different Views

#### **Managing Data and Creating Reports**

- · Finding the Data in a File
- Working with the Data Manager and Report Creator

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## Autodesk 3ds Max 2016

**Autodesk 3ds Max 2016 The Complete Guide** is designed to give you a solid understanding of 3ds Max features and capabilities, from the basics through advanced components. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical Let Me Try examples.

3ds Max Design is widely used by architects, game developers, design visualization specialists, and visual effects artists. A wide range of modeling and texturing tools make it an ideal platform for 3D modelers and animators.

### User's prerequisites

You don't need any previous experience with Autodesk® 3ds Max® to take this course.

#### **Course Outline**

#### New for 3ds Max 2016

- User Interface and Workflow Developments
- 3D Modeling and Interoperability
- · Rendering & Animation

#### **Introduction to Autodesk 3ds Max**

- Introduction To Autodesk 3ds Max 2016
- · Autodesk 3ds Max Interface Components
- · Snap Settings
- · Units Setup
- Tools
- · Hot Keys
- Customizing the Colors of the User Interface

#### **Standard Primitives**

- · Introduction to Standard Primitives
- Selection Techniques
- Scene Management
- · Standard Primitives
- Rendering a Still Image

#### **Extended Primitives**

- · Introduction to Extended Primitive
- Extended Primitive

### **Working with Architectural Objects**

- Introduction to Architectural Objects
- AEC Extended Primitives
- · Creating Doors
- · Creating Windows
- Creating Stairs

#### **Splines and Extended Splines**

- Introduction to Splines and Extended Splines
- Creating Splines
- · Creating Extended Splines

#### **Modifying Splines**

- Introduction to Modifying Splines
- Modifying the Shapes
- Rollouts
- · Geometry Rollout

## **Materials and Maps**

- · Introduction to Materials and Maps
- · Material Editor Tools
- Standard Materials
- Architectural Material
- Maps

## **Modifying 3D Mesh Objects**

- · Introduction to Modifying 3D Mesh Objects
- · Sub-object Levels in Editable Mesh

#### **Graphite Modeling Technique**

- · Graphite Modeling Toolset
- Graphite Modeling Toolset Continued

#### **NURBS Modeling**

- · Introduction to NURBS Modeling
- NURBS Surfaces
- · Converting and Modifying Nurbs

## **Compound Objects**

- Compound Objects
- Additional Compound Objects

### Modifiers

- Introduction to Modifiers
- Type of Modifiers

## **Lights and Cameras**

- · Introduction to Lights and Cameras
- · Photometric and Default Lights
- Tools and Cameras

#### **Animation Basics**

- Introduction to Animation Basics
- Understanding Animation and Time Controls
- Morph Compound Object
- Rendering and Previewing an Animation
- Rendering Effects

#### Systems, Hierarchy, and Kinematics

- Introduction to Systems, Hierarchy, and Kinematics
- · Hierarchy and Kinematics

#### **Rigid Body Dynamics and Helpers**

- Introduction to Rigid Body Dynamics and Helpers
- · MassFX Rigid Body Modifier
- mCloth Modifier
- Constraints
- · Simulation Controls
- Helpers
- · Atmospheric Apparatus
- Event Display Area

## Particle Flow

- · Introduction to Particle Flow
- Particle View Window
- Understanding Particle Flow Actions>

## Particle Systems and Space Warps I

- Introduction to Particle Systems
- Mesh tools
- · Categories of Space Warps

## **Particle Systems and Space Warps II**

- Introduction to Particle Systems and Space Warps II
- Geometric/Deformable Space Warps
- Modifier-Based Space Warps

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## Autodesk Advance Steel 2016

**Autodesk Advance Steel** detailing software is built on the AutoCAD platform. Structural engineering professionals use the software to help accelerate design, steel detailing, steel fabrication, and steel construction. The Advance Steel Essentials 2018 course provides an overview of the user interface, an introduction to the methodology and workflow in Advance Steel, and best practices for working with files.

To get the most out of this course, we strongly recommend you review every topic within the course, and use all the learning styles to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real world, Let Me Try examples.

## User's prerequisites

You don't need any previous experience with Autodesk® Advance Steel to take this course.

#### **Course Outline**

#### **Introduction to Advance Steel**

- Introduction to Advance Steel
- System Requirements and License

## **Starting in Revit**

· Starting in Revit

## **Basic Modeling**

Basic Modeling

#### **Stairs and Handrails**

Stairs and Handrails

## **Model and Sheet Information Management**

· Model and Sheet Information Management

#### Collaboration

Collaboration

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# Autodesk Dynamo 2016

**Autodesk Dynamo The Complete Guide** is designed to give you a solid understanding of Dynamo features and capabilities. Dynamo extends building information modeling with the data and logic environment of a graphical algorithm editor.

To get the most out of this course, we strongly recommend you review every topic .within the course and take advantage of the different tools and activities to help to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real-world, Let Me Try examples.

## User's prerequisites

You don't need any previous experience with Autodesk® Dynamo to take this course.

## **Course Outline**

#### **Introduction to Dynamo**

• An Introduction to Dynamo

#### **Data Management in Dynamo**

- · Intro to Lists
- · List Manipulations
- List Structures

#### **Geometry Creation in Dynamo**

- · Attractor Point
- · Multiple Attractors
- Louvres
- Trigonometric Surfaces
- Surface Generation and Panelization
- Parametric Bridge

#### **BIM Elements**

- · Family Instance
- Adaptive Pipe
- · LunchBox and Adaptive Modules

#### Interoperability

- · Family Instance
- · Levels Data
- Structural Data
- · Importing Geometry
- · Room Data

#### **Conceptual Tower**

- · Tower Form and Levels
- · Creating Floors
- Façade Structure
- · Façade Diagonals
- · Façade Panels
- Panel Control

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# Autodesk Fabrication CADmep 2016

**Autodesk Fabrication CADmep** for Beginners / Intermediate shows new users how to navigate and generate basic Piping, Plumbing, and Sheet Metal drawings. While going through this course, you will discover how to use the software to greatly improve your Coordinated shop drawings for fabrication and installation use. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

To get the most out of this course, we strongly recommend you review every topic .within the course and take advantage of the different tools and activities to help to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real-world, Let Me Try examples.

### User's prerequisites

You don't need any previous experience with Autodesk® Fabrication CADmep to take this course.

## **Course Outline**

#### Introduction to Autodesk Fabrication CADmep Beginner/ Intermediate

 Introduction to Autodesk Fabrication CADmep Beginner/ Intermediate

#### **Recommended Pre-Requisites**

- Famliar AutoCAD Terms and Functionality
- Building Information Modeling (BIM)
- LOD (Levels of Detail)

#### **Autodesk Fabrication CADmep Interface**

- Navigating the Toolbars
- · Placing Items in the Drawing
- Editing and Modifying Items
- · Working with CADmep Object Properties

#### **Services and Sections**

- Navigating through Sections
- · Selecting the Different Services
- · Layer Management in Services

#### **Drawing Tools**

· Review of Database Takeoff and CAD Settings

#### **Working with Manual Drawing Methods**

- Manual Drawing Methods
- · Working with Attacher Arrow

#### **Working with Automatic Drawing Methods**

- · Working with Design Line
- · Automated Fill Routines

## **Working with Annotations**

· Fabrication Annotations

### **Working with Reports**

· Reports and BOMs

#### Spooling

• Navigating the Spool Manager and Spool Reports

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# Modeling with Autodesk Fusion 360 2016

**Modeling with Autodesk Fusion 360 The Complete Guide** is designed to give you a solid understanding of Fusion 360's modelling features and capabilities. This course is designed to use all learning styles from text, audio, video, interactivity and quizzes. Fusion 360 is a 3D CAD, CAM, and CAE tool. It connects your entire product development process in a single cloud-based platform - that works on both Mac and PC.

You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning 2D drawing skills, editing entities, working with T-Splines, adding images and materials, using inspection tools and creating drawings.

## User's prerequisites

You don't need any previous experience with Autodesk® Fusion 360 to take this course.

## **Course Outline**

#### **Introduction to Fusion 360**

· Introduction to Fusion 360

#### **Sketch Geometry Concepts**

- Creating Sketch Geometry
- · Modifying Sketch Geometry

## **Solid Modeling Concepts**

- · Solid Modeling Tools
- · Editing Tools

#### **Sculpting Concepts**

· T-Spline Surface Modeling

#### **Assemblies and Constraints**

· Assemblies and Constraints

## Assigning Materials, Adding Images, and Inspection

- · Assigning Materials and Adding Images
- Inspection Tools

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## Autodesk Infraworks 360 2016

In the **Autodesk Infraworks 360 The Complete Guide** course, learn how to customize model visualizations as well as coordinate model data with various types of softwares. Investigate how to apply specific-to-your project data and retrieve analysis results to help benefit your civil engineering project.

To get the most out of this course, we strongly recommend you review every topic .within the course and take advantage of the different tools and activities to help to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real-world, Let Me Try examples.

## User's prerequisites

You don't need any previous experience with Autodesk® Infraworks 360 to take this course.

#### **Course Outline**

#### The Infraworks Environment

- User Interace
- Data Sources, Panel Settings & Features
- Application Options and Asset Cards Overview
- Coordinate Systems
- · Working with GIS
- · Getting Help

## **Navigation and Selection**

- Navigation and Selection
- Secting Features
- Gizmos

#### **Working with Styles**

- · Working with Styles
- Materials
- · Filter Expressions

#### **Sourcing for Existing Conditions**

- Terrain Data
- Imagery
- · Utilities and Pipes
- Roads
- · City Furniture
- Point Cloud

## **Creating the Design**

- · Propose Site Features
- Proposals
- Roads and Railways
- Coverages
- Trees
- · Pipelines and Pipeline Connectors
- Water Areas
- Barriers
- · Point of Interest

#### **Analyzing Your Design**

- Measurements
- Site Visual Effects and Statistics
- · Working with Themes

#### **Presenting Your Design**

- Storyboards
- Snapshot
- · Rendering Images

## **Sharing Your Design**

- · Sharing Your Design
- · Publish Options & Design Feeds
- Scenarios
- · InfraWorks and AutoCAD Civil 3D
- · Working with Revit Models

#### **Roadway Design Module**

- Roadway Design Toolbar Overview
- Creating Design Roads and Intersections
- · Road Editing Tools
- · Road Analysis

#### **Drainage Design Module**

- · Drainage Design Module
- Culverts
- Drainage Network

#### **Bridge Design Module**

- Introduction
- · Exploring the Bridge Design Asset Card
- · Creating Bridges
- · Editing Bridges with Properties and Gizmos
- · Bridge Analysis Tools

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## Autodesk Infraworks 360 LT 2016

Autodesk Infraworks 360 LT The Complete Guide is designed to give you a solid understanding of Infraworks LT features and capabilities. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

In this course, you will investigate the various tools available for designing and analyzing civil-scale models. Learn how to customize model visualizations as well as coordinate model data with various types of software. Investigate how to apply specific-to-your project data and retrieve analysis results to help benefit your civil engineering project.

## User's prerequisites

You don't need any previous experience with Autodesk® Infraworks 360 LT to take this course.

#### **Course Outline**

#### The Infraworks Environment

- User Interace
- Data Sources, Panel Settings & Features
- Application Options and Asset Cards Overview
- Coordinate Systems
- · Working with GIS
- · Getting Help

#### **Navigation and Selection**

- Navigation and Selection
- Secting Features
- Gizmos

## **Working with Styles**

- · Working with Styles
- Materials
- Filter Expressions

## Creating the Design

- · Propose Site Features
- Proposals
- Roads and Railways
- Coverages
- Pipelines and Pipeline Connectors Water Areas
- Barriers
- · Point of Interest

## **Analyzing Your Design**

- Measurements
- · Site Visual Effects and Statistics
- · Working with Themes

## **Presenting Your Design**

- · Storyboards
- Snapshot
- · Rendering Images

## **Sharing Your Design**

- · Sharing Your Design
- · Publish Options & Design Feeds
- Scenarios
- · InfraWorks and AutoCAD Civil 3D
- · Working with Revit Models

#### Roadway Design Module

- · Roadway Design Toolbar Overview
- · Creating Design Roads and Intersections
- · Road Editing Tools
- Road Analysis

## **Drainage Design Module**

- · Drainage Design Module
- Culverts
- · Drainage Network

## **Bridge Design Module**

- · Introduction
- Exploring the Bridge Design Asset Card
- · Creating Bridges
- · Editing Bridges with Properties and Gizmos
- Bridge Analysis Tools

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



## Autodesk Inventor 2016

Autodesk Inventor is a parametric CAD software offers an easy-to-use set of tools for 3D mechanical design, documentation, and product simulation. Digital Prototyping with Inventor helps you design and validate your products before they are built to deliver better products, reduce development costs, and get to market faster.

**Autodesk Inventor 2016 Complete Guide** is designed to give you a solid understanding of Inventor features and capabilities from the basics through to advanced

components. The course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples. You'll follow a workflow-based approach, creating 2D drawings from 3D data, modeling parts, combining parts into assemblies, annotating drawings, using advanced assembly tools, working with sheet metal, presenting designs, and simulation.

### User's prerequisites

You don't need any previous experience with Autodesk® Inventor to take this course.

#### **Course Outline**

#### New for 2016 - General Enhancements

- General
- · Interoperability

## New for 2016 - Parts and Sketching

- · Part Modeling Updates
- · Sheet Metal
- · Changes to Sketching

#### New for 2016 - Freeform Environment Updates

· Freeform Modeling

#### **New for 2016 Assemblies and Presentations**

- · Assembly Enhancements
- · Presentation Enhancements

## Introduction to Autodesk Inventor 2016

- Getting Started with Autodesk Inventor
- Working with Drawing Display Tools
- Important Terms and Definitions

### **Drawing Sketches for Solid Models**

- · Understanding the Sketching Environment
- Drawing Sketched Entities I
- · Drawing Sketched Entities II
- · Fillets, Chamfers, and Splines

#### **Adding Constraints and Dimensions to Sketches**

- Working with Geometric Constraints
- · Working with Dimensional Constraints
- Measuring Sketched Entities

## **Editing, Extruding and Revolving the Sketces**

- · Editing Sketched Entities
- Creating Patterns, Adding Text and Images
- Extruding, Revolving, Primitives and Freeforms
- Rotating the View and Controlling the Display

## **Other Sketching and Modeling Options**

- · Creating Work Planes
- Creating Work Axes and Points
- Other Extrusion and Revolution Options

#### Advanced Modeling Tools - I

- Creating Holes
- · Creating Fillets and Chamfers
- · Moving the Faces and Editing Features
- · Project Entities in the Sketching Environment

## **Advanced Modeling Tools - II**

- · Sweeps, Lofts, Coils and Threads
- Shells, Drafts and Splits
- Editing Surfaces
- Editing without Using Sketches

## Assembly Modeling - I

- · Understanding Assembly Modeling
- Assembling Components using the Constrain Tool
- Applying Joints to the Assembly
- Relationships, Moving and Rotating Components

## Assembly Modeling - II

- Editing Assembly Constraints and Components
- Modifying Components in An Assembly
- Analyzing Assemblies and Creating Representations

#### **Working with Drawing Views**

- · Drawing Standards
- Dimension Styles
- Annotating the Drawing

#### Presentations

- The Presentation Module
- · Animating An Assembly

## **Working with Special Design Tools**

- Adaptive Parts and Defining Parameters
- iParts
- 3D Sketches

#### **Working with Sheet Metal Components**

- · Understanding Sheet Metal
- Additional Sheet Metal Options

#### Introduction to Weldments

- Understanding Weldments
- Editing Weldments
- · Adding the Finishing Touches

#### Miscellaneous Tools

- Sketches
- iMates
- Title Blocks

#### **Introduction to Stress Analysis**

- Introduction to Analysis
- More on Analysis
- · Starting an Analysis
- Applying Constraints and Loads

## **Introduction to Plastic Mold Design**

- Starting with Plastic Mold Design
- Adjusting the Model
- Generating the Core and Cavity
- · Runners, Wells, and Channels

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# Autodesk Inventor iLogic 2016

**Autodesk Inventor iLogic 2016 Complete Guide** is designed to give you a solid understanding of Inventor iLogic features and capabilities from the basics through to advanced components.

Autodesk Inventor's iLogic feature enables you to automate and standardize design processes, providing a simple way to capture and reuse your work. iLogic embeds rules

as objects directly into part, assembly, and drawing documents. The rules determine and drive a designs parameter and attribute values. By controlling these values, you can define behavior of the attributes, features, and components of a model. With iLogic, Inventor users can analyze problems, and define new standards and templates - enabling them to create not only single products, but entire product families.

## User's prerequisites

You don't need any previous experience with Autodesk® Inventor to take this course.

#### **Course Outline**

#### Starting with iLogic

- · What is iLogic?
- The Anatomy of Your Code

#### **Rule Creation**

- · Building Your Rules
- · Conditional Statements
- Other Rule Options

#### **Working with Parts**

- · Rules for Parts
- · iFeatures, iParts & iAssemblies

## **Assemblies and Drawings**

- · Assemblies and Drawings
- · Drawings

#### **Working with Microsoft Excel**

· Microsoft Excel and iLogic

#### Interaction with the User

- User Interaction
- Forms

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## Autodesk Inventor Professional 2016

Autodesk Inventor Professional is a parametric CAD software offers an easy-to-use set of tools for 3D mechanical design, documentation, and product simulation. Digital Prototyping with Inventor helps you design and validate your products before they are built to deliver better products, reduce development costs, and get to market faster.

**Autodesk Inventor Professional 2016 Complete Guide** is designed to give you a solid understanding of Inventor features and capabilities from the basics through to

advanced components. The course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples. You'll follow a workflow-based approach, creating 2D drawings from 3D data, modeling parts, combining parts into assemblies, annotating drawings, using advanced assembly tools, working with sheet metal, presenting designs, and simulation.

## User's prerequisites

You don't need any previous experience with Autodesk® Inventor to take this course.

#### **Course Outline**

#### New for 2016 - General Enhancements

- General
- · Interoperability

## New for 2016 - Parts and Sketching

- Part Modeling Updates
- Sheet Metal
- · Changes to Sketching

#### New for 2016 - Freeform Environment Updates

Freeform Modeling

#### **New for 2016 Assemblies and Presentations**

- Assembly Enhancements
- · Presentation Enhancements

## Introduction to Autodesk Inventor 2016

- Getting Started with Autodesk Inventor
- · Working with Drawing Display Tools
- Important Terms and Definitions

#### **Drawing Sketches for Solid Models**

- · Understanding the Sketching Environment
- Drawing Sketched Entities I
- Drawing Sketched Entities II
- Fillets, Chamfers, and Splines

#### **Adding Constraints and Dimensions to Sketches**

- Working with Geometric Constraints
- Working with Dimensional Constraints
- Measuring Sketched Entities

## **Editing, Extruding and Revolving the Sketches**

- Editing Sketched Entities
- Creating Patterns, Adding Text and Images
- · Extruding, Revolving, Primitives and Freeforms
- Rotating the View and Controlling the Display

#### Other Sketching and Modeling Options

- Creating Work Planes
- Creating Work Axes and Points
- · Other Extrusion and Revolution Options

## Advanced Modeling Tools - I

- Creating Holes
- · Creating Fillets and Chamfers
- Moving the Faces and Editing Features
- · Project Entities in the Sketching Environment

#### **Advanced Modeling Tools - II**

- · Sweeps, Lofts, Coils and Threads
- · Shells, Drafts and Splits
- Editing Surfaces
- Editing without Using Sketches

#### Assembly Modeling - I

- Understanding Assembly Modeling
- Assembling Components using the Constrain Tool
- Applying Joints to the Assembly
- Relationships, Moving and Rotating Components

#### Assembly Modeling - II

- Editing Assembly Constraints and Components
- Modifying Components in An Assembly
- Analyzing Assemblies and Creating Representations

## **Working with Drawing Views**

- Drawing Standards
- · Dimension Styles
- Annotating the Drawing

#### Presentations

- · The Presentation Module
- Animating An Assembly

## **Working with Special Design Tools**

- Adaptive Parts and Defining Parameters
- iParts
- 3D Sketches

#### **Working with Sheet Metal Components**

- Understanding Sheet Metal
- Additional Sheet Metal Options
- Introduction to Weldments

#### **Understanding Weldments**

- Editing Weldments
- Adding the Finishing Touches

#### Miscellaneous Tools

- Sketches
- iMates
- Title Blocks

#### **Introduction to Stress Analysis**

- · Introduction to Analysis
- More on Analysis
- · Starting an Analysis
- · Applying Constraints and Loads

## Introduction to Plastic Mold Design

- Starting with Plastic Mold Design
- · Adjusting the Model
- · Generating the Core and Cavity
- Runners, Wells, and Channels

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# Autodesk Maya Animation 2016

Autodesk Maya is a 3D software which enables you to create realistic 3D models and visual effects with much ease. Used to create interactive 3D applications, Maya is a comprehensive toolset that allows you to realize your creative vision. In this course, you will learn the major functions of Animation in Maya.

To get the most out of this course, we strongly recommend you review every topic .within the course and take advantage of the different tools and activities to help to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real-world, Let Me Try examples.

## User's prerequisites

You don't need any previous experience with Autodesk® Maya to take this course.

#### **Course Outline**

#### Animation

- · Animation Types
- · Animation Controls
- · Creating Animations
- Animation Menus
- · Animation Menus II
- Animation Menus III
- · Animation Menus IV
- Animation Layers
- · Animation Layers II

## **Rigging, Constraints and Deformers**

- · Bones, Joints and Deformers
- Deformer Tools
- Applying Constraints
- Adding Constraint to Animation Layers
- Skinning an Object and Muscle Deformer
- Set Driven Key

#### **Paint Effects**

- · Working with the Visor Window
- Working with the Paint Effects Window
- · Working with the Paint Effects Window II

#### Rendering

- Renderers
- · Renderers II

#### Particle System

- · Creating Particles
- · Creating Emitters
- Particles
- · Creating Effects

#### Introduction to nParticles

Creating nParticles
Creating nParticles II

#### Fluids

- · Classifcation of Fluid Effects
- · Working with Fluid Containers
- · Fluid Components and Effects

## nHair

- nHair
- Simulating nHair

## Fur

- · Creating Fur with Maya
- · Creating Fur with Maya II

#### **Bullet Physics**

- · Bullet Objects
- · Bullet Objects II

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Autodesk Maya Modeling 2016

Autodesk Maya is a 3D software which enables you to create realistic 3D models and visual effects with much ease. Used to create interactive 3D applications, Maya is a comprehensive toolset that allows you to realize your creative vision. In this course, you will learn the major functions of both the interface and modelling in Maya.

To get the most out of this course, we strongly recommend you review every topic .within the course and take advantage of the different tools and activities to help to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real-world, Let Me Try examples.

## User's prerequisites

You don't need any previous experience with Autodesk® Maya to take this course.

## **Course Outline**

## **Exploring Maya Interface**

- Autodesk Maya Screen Components I
- Autodesk Maya Screen Components II
- Shelf
- · Tool Box
- Time Slider and Range Slider
- Panel Toolbar II
- Channel Box / Layer Editor
- · Attribute Editor, Hotbox and Other

#### **Polygon Modeling**

- · Polygon Primitives I
- · Polygon Primitives II
- Polygon Primitives III
- · Polygon Editing Tools
- Editing the Polygon Components
- Editing the Polygon Components Using Mesh Tools

#### **NURBS Curves and Surfaces**

- NURBS Primitives
- NURBS Primitives II
- NURBS Primitives III
- Tools for Creating NURBS Curves II

#### **NURBS Modeling**

- · Working with NURBS Tools
- Working with NURBS Tools II
- · Converting Objects

#### **UV Mapping**

- UV Mapping
- UV Mapping II
- · UV Layout Group
- UV Layout Group II
- UV Layout Group III

### **Shading and Texturing**

- · Working in the Hypershade Window
- Hypershade Tab Toolbar
- · Exploring the Shaders
- Shader Attributes

#### Lighting

- Types of Lights
- Types of Lights II
- · Glow and Halo Effects
- · Physical Sun and Sky Effects

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Autodesk Moldflow Insight Fundamentals 2016

The Introduction to **Autodesk Moldflow Insight Fundamentals** is a 40-hour course that gives you an understanding of polymer flow and how it relates to part quality, and introduces you to Autodesk Moldflow Insight. In It's All About Flow, learn how polymers flow and how the Moldflow design philosophy is used to address polymers characteristics. In Gate Placement, find out where and why gates should be placed where they are and how Moldflow can help with gate placement. In Molding Window, discover the primary processing conditions used in injection molding and how to optimize them. In Gate and Runner Design, learn how to model and analyze the runner system for injection molding—including valve gates. In Meshing, discover the different mesh types used in Moldflow and how to create a good mesh. In Materials, familiarize yourself with specific polymer characteristics and polymer related molding defects, and learn how to find materials to use in a Moldflow analysis. In Fill and Pack Analysis, find out how to run filling and packing analyses and what results are available. In Results, discover how to result plot properties and how to manipulate them. Molding problems and results guidelines are also discussed. And finally, in Reports, learn the methods of sharing results from Moldflow to others on your team.

## User's prerequisites

You don't need any previous experience with Autodesk® Moldflow® Insight to take this course.

## **Course Outline**

#### It's All About Flow

- Introduction
- · How Plastic Fills a Mold
- · Key Mold Settings
- Moldflow Flow Concepts
- · Moldflow Design Philosophy

#### **Gate Placement**

- Introduction
- Flow Concepts
- · Number of Gates
- Position Gates

## **Molding Window**

- Introduction
- · Analysis Inputs
- · Viewing Results

#### **Gate and Runner Design**

- Introduction
- Flow Concepts
- Gate Design
- Modeling Feed Systems
- · Manual Creation
- Runner Balancing
- Valve Gates

## Meshing

- Introduction
- · Types of Mesh
- · Importing
- · Generate Mesh
- Mesh Evaluation
- Closer Inspection
- · Manual Mesh Repair

#### Materials

- Introduction
- · Material Properties
- · Materials Database

## Fill and Pack Analyses

- Introduction
- Fill Inputs
- Fill Results
- Pack/Hold Control
- · Pack Results

## Results

- Introduction
- · Plot Type
- Plot Properties
- Results Display

- Basic Symptoms
- · Molding Problems
- Guidelines
- · Guidelines 2

#### Reports

- Introduction
- Create Reports
- · Export Files
- Communicator

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



## Autodesk Navisworks 2016

**Autodesk Navisworks 2016 The Complete Guide** is designed to give you a solid understanding of Navisworks eatures and capabilities from the basics through to advanced components.

Navisworks project review software enables architecture, engineering, and construction professionals to holistically review integrated models and data with stakeholders to gain better control over project outcomes.

To get the most out of this course, we strongly recommend you review every topic .within the course and take advantage of the different tools and activities to help to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real-world, Let Me Try examples.

## User's prerequisites

You don't need any previous experience with Autodesk® Navisworks to take this course.

#### **Course Outline**

#### **New for Navisworks 2016**

- Coordination and Integration
- Integration with Autodesk AutoCAD
- · Navisworks Integration with BIM360 Glue
- · Quantification Updates

#### **Introduction to Autodesk Navisworks**

- The Autodesk Navisworks User Interface
- Configuring Settings
- · Managing Files
- Setting Units

## **Exploring the Navigation Tools in Navisworks**

- Using the Head-Up Display and Navigation Tools
- Cameras and Reference Views

## Selecting, Controlling, and Reviewing Objects

- Selection Tools
- · Selection Sets
- Measuring and Redlining
- Controlling the Visibility of Objects, Using the Gizmo, Managing Links
- The Appearance Profiler Window

#### Viewpoints, Sections, and Animations

- · Working with Viewpoints
- · Section Views, Animating Viewpoints

#### Timeliner

· Working with Timeliner

### **Working with Animator and Scripter**

- · Working with Animator
- Working with Scripter

#### Quantification

· Quantification Workbook Window

#### **Clash Detection**

- · Working with Clash Detective
- Managing Clash Tests

#### **Autodesk Rendering**

- Understanding the Autodesk Rendering Window
- Mapping, Lighting, Environments and Rendering Using Autodesk Graphics

EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Autodesk Navisworks Manage 2016

**Autodesk Navisworks Manage 2016 The Complete Guide** is designed to give you a solid understanding of Navisworks Manage 2016 features and capabilities from the basics through to advanced components.

Navisworks project review software enables architecture, engineering, and construction professionals to holistically review integrated models and data with stakeholders to gain better control over project outcomes.

## User's prerequisites

You don't need any previous experience with Autodesk® Navisworks to take this course.

## **Course Outline**

#### **New for Navisworks Manage 2016**

- Coordination and Integration
- Integration with Autodesk AutoCAD 2016
- Navisworks Integration with BIM 360 Glue
- Quantification Updates

#### **Introduction to Autodesk Navisworks**

- The Autodesk Navisworks User Interface
- · Configuring Settings
- · Managing Files
- Setting Units

#### **Exploring the Navigation Tools in Navisworks**

- Using the Head-Up Display and Navigation Tools
- · Cameras and Reference Views

## Selecting, Controlling, and Reviewing Objects

- · Selection Tools
- Selection Sets
- · Measuring and Redlining
- Controlling the Visibility of Objects, Using the Gizmo, Managing Links
- The Appearance Profiler Window

#### **Viewpoints, Sections, and Animations**

- · Working with Viewpoints
- Section Views, Animating Viewpoints

#### Timeline

· Working with Timeliner

#### **Working with Animator and Scripter**

- · Working with Animator
- · Working with Scripter

#### Quantification

· Quantification Workbook Window

#### **Clash Detection**

- · Working with Clash Detective
- · Managing Clash Tests

#### **Autodesk Rendering**

- · Understanding the Autodesk Rendering Window
- Mapping, Lighting, Environments and Rendering Using Autodesk Graphics

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



## Autodesk Navisworks Simulate 2016

**Autodesk Navisworks Simulate 2016 The Complete Guide** is designed to give you a solid understanding of Navisworks Simulate 2016 features and capabilities from the basics through to advanced components.

Navisworks project review software enables architecture, engineering, and construction professionals to holistically review integrated models and data with stakeholders to gain better control over project outcomes.

## User's prerequisites

You don't need any previous experience with Autodesk® Navisworks to take this course.

#### **Course Outline**

### **New for Navisworks Simulate 2016**

- Coordination and Integration
- Integration with Autodesk AutoCAD 2016
- · Navisworks Integration with BIM 360 Glue
- Quantification Updates

#### **Introduction to Autodesk Navisworks**

- · The Autodesk Navisworks User Interface
- Configuring Settings
- · Managing Files
- Setting Units

## **Exploring the Navigation Tools in Navisworks**

- Using the Head-Up Display and Navigation Tools
- Cameras and Reference Views

#### Selecting, Controlling, and Reviewing Objects

- Selection Tools
- Selection Sets
- · Measuring and Redlining
- Controlling the Visibility of Objects, Using the Gizmo, Managing Links
- The Appearance Profiler Window

#### Viewpoints, Sections, and Animations

- · Working with Viewpoints
- Section Views, Animating Viewpoints

#### Timeliner

· Working with Timeliner

#### **Working with Animator and Scripter**

- · Working with Animator
- · Working with Scripter

#### Quantification

· Quantification Workbook Window

#### **Clash Detection**

- · Working with Clash Detective
- Managing Clash Tests

## **Autodesk Rendering**

- · Understanding the Autodesk Rendering Window
- Mapping, Lighting, Environments and Rendering Using Autodesk Graphics

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Autodesk Revit Advanced Concepts 2016

**Autodesk Revit Advanced Concepts 2016 The Complete Guide** introduces and expands on advanced Revit concepts. Concepts covered include Construction Modeling, Phases and Design Options, Site Tools and Design Analysis Presentation Views, Project and Setting Management and Conceptual Design.

To get the most out of this course, we strongly recommend you review every topic within the course, and use all the learning styles to ensure you retain the important information within. We also encourage you to take all the progress tests to ensure you have retained the knowledge, and most importantly practice with the hundreds of real world, Let Me Try examples.

## User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

## **Course Outline**

#### **Construction Modeling**

- · Construction Modeling
- Assemblies

## **Phases and Design Options**

- · Phases and Design
- · Design Options

#### **Site Tools and Design Analysis**

- · Site Tools
- Energy and Sun

#### **Presentation Views**

- · Presentation Views
- · Using Decals and Shadows

## **Schedules and Tags**

- Tags
- Schedules

#### **View Graphics**

- Visibility
- Overrides

#### Renderings and Walkthroughs

- · Sun Settings
- Rendering
- Walkthroughs

## **Projects and Settings**

- Organization
- · Project Management
- Settings Management

#### **Walls and Curtain Walls**

- · Curtain Walls
- Walls

#### **Conceptual Design**

- · Conceptual Mass
- Forms
- · Divided Paths and Surfaces
- · Mass Elements

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



## Autodesk Revit Architecture 2016

**Autodesk Revit Architecture 2016 The Complete Guide** iis designed to give you a solid understanding of Revit Architecture 2015 features and capabilities from the basics through to advanced components.

You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning this powerful, sophisticated building information modeling (BIM) software that has transformed the architectural design industry. It is the perfect introduction to the powerful software for architects, designers, and students.

## User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

#### **Course Outline**

#### New for 2016

- · New Features for Revit 2016
- · New Features for Revit Architecture 2016

#### **Introduction to Autodesk Revit Architecture 2016**

- User Interface Tour
- Browsers, Bars, Palettes and Windows
- Revit Architecture 2016 Help

#### Starting an Architectural Project

- · Starting a New Architectural Project
- · Navigation Tools
- · Configuring Global Settings

#### **Creating Walls**

- Creating Architectural Walls
- Creating Architectural Walls II

## **Using Basic Building Components-I**

- · Adding Doors
- · Adding Window and Wall Openings

## **Using the Editing Tools**

- · Working with Selection Sets
- · Editing Tools
- Editing Tools II
- · Grouping Elements
- Retrieving Information about Elements

#### **Working with Datum Planes and Creating Standard Views**

- · Working with Levels
- Working Grids
- · Working with Reference Planes and Work Planes
- · Controlling the Display of Elements
- · Working with Project Views

## **Using Basic Building Components-II**

- · Creating Floors
- · Creating Roofs
- · Shape Editing Tools
- Creating Ceilings
- · Adding Rooms

## **Using Basic Building Components-III**

- · Working with Components
- Adding Stairs
- · Adding Railings and Ramps
- · Creating Curtain Walls

#### **Adding Site Features**

- · Working with Site Features
- Property Lines and Building Pads
- · Adding Site Components

#### **Using Massing Tools**

- Understanding Massing Concepts
- · Creating Massing Geometry in the Family Editor
- · Editing Massing Geometry in the Family Editor
- Massing in the Conceptual Design Environment
- Creating Massing Geometry in a Project
- · Creating Building Elements from Massing Geometry
- Creating Families

### **Adding Annotations and Dimensions**

- Adding Tags
- Room Tags
- Keynotes
- Adding Symbols and Dimensions
- · Dimensioning Terminology and Dimensioning Tools
- Adding Alternate Dimension Units and Spot Dimensions

## **Creating Project Details and Schedules**

- Project Detailing in Autodesk Revit Architecture
- Crop Regions, Fill Patterns, and Detail Components
- · Adding Text Notes
- Creating Drafting Views
- Revision Clouds
- · Working with Schedules

## **Creating Drawing Sheets and Plotting**

- · Creating Drawing Sheets
- · Creating Duplicate Dependent Views
- Printing in Revit Architecture

#### **Creating 3D Views**

- Three Dimensional (3D Views)
- Dynamically Viewing Models with Navigation Tools
- · Orienting a 3D View
- Generating Perspective Views
- · Using a Section Box

#### **Rendering Views and Creating Walkthroughs**

- · Rendering in Revit Architecture
- · Working with Materials
- · Lights, Decals, and Entourage
- · Rendering Settings
- · Creating a Walkthrough
- · Autodesk 360 | Rendering

#### **Using Advanced Features**

- · Creating Structural Components
- Generating Multiple Design Options
- Using Area Analysis Tools
- Masking Regions
- Creating Displaced Views
- Color Schemes
- Working With Project Phasing Tools

#### **Using Advanced Features II**

- Workingsharing Concepts
- Elements Families, Browsers, Generating Shadows
- Creating Solar Studies
- · Working with Point Clouds
- · Revit Architecture Interoperability
- Linking Building Models and Sharing Coordinates
- · Working with Linked Models



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## Autodesk Revit Families 2016

**Autodesk Revit Families 2016 The Complete Guide** gives attendees a thorough introduction to creating Revit Families - from basic 2D Symbols through to complex 3D Nested Families.

In "Introduction to Revit Families", we go into some depth about the different Revit Families, what they are, and what they are used for. In the second theory section, "Family Templates", we look at all of the different Templates that come with Revit and what they are used for. When we move onto "The 2D Family Editor Environment", we look at the main commands that come with the 2D Ribbon Menu that we require to make 2D Symbols and Title Blocks. In "The 3D Family Editor Environment", we get into looking at the commands available on the 3D Ribbon Menu. Users will be introduced to Parametric Framework, the "skeleton" that is vital for creating 3D families.

You don't need any previous experience with Autodesk® Revit to take this course.

## **Course Outline**

· What is a Revit Family?

User's prerequisites

- An Introduction to Family Templates
- · The 2D Menu Ribbon
- The 3D Menu Ribbon
- Reference Planes The Skeleton of Parametric Framework
- Dimensions and Labels (Parameters)
- · Family Element Commands
- More Advanced Options
- · Managing Revit Families
- Bonus Project Exercises

Then it is onto "Creating Family Elements". Users will be introduced to all of the 3D commands that they will need for creating solids and voids, with lots of hands-on exercises to develop their skills. In the next section, "Moving beyond the Basics", users will work through hands-on exercises for a variety of advanced Revit Family features, including using parametric Materials, Nested Families, Object Styles, Shared Parameters and Reporting, Visibility Display Settings, Type Catalogs, as well as more Parameter types and tools - as well as basic MEP families.

Then users will learn about "Managing Revit Families". This section contains good tips for properly managing Revit Families.

At the end of the course there are six (6) Bonus 2D and 3D Project Exercises where users can put all of their skills together.

## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



## Autodesk Revit MEP 2016

Autodesk Revit MEP 2016 The Complete Guide is designed to give you a solid understanding of Revit MEP features and capabilities from the basics through to advanced components. This course provides a detailed description of all basic and advanced concepts as well as the usage of the tools and commands of Autodesk Revit MEP 2016. It explores the processes involved in Building Information Modeling. The topics covered

range from creating building components, HVAC systems, electrical systems, plumbing systems, fire protection systems to designing conceptual massing, performing HVAC heating and loading analysis, and creating rich construction documentation. Special emphasis has been laid on the concepts of space modeling and tools to create systems for all disciplines

## User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

#### **Course Outline**

#### New for 2016

- New Features for Revit 2016
- New Features for Revit MEP 2016

#### **New for Revit MEP**

Fabrication

#### Introduction to Autodesk Revit MEP

- Introducing the Autodesk Revit MEP User Interface
- · Understanding the Interface, Getting Help

## **Getting Started with an MEP Project**

- · Starting a New Project in Revit MEP
- Linking Revit Models and Sharing Coordinates
- The Snaps Tool, The Options Dialogue Box

## Creating Datums, Project Views, and Building Envelopes

- · Working with Levels
- · Working with Grids

- Understanding Wall Types
- The Appearance Profiler Window

## Spacing, Zones, and Cooling and Heating Load Analysis

- · Creating Spaces
- Color Schemes, Working with Zones

#### **Creating a Mechanical System**

- · Understanding HVAC Systems
- · Generating HVAC System Layouts

## **Creating an Electrical System**

- · Understanding Electrical Systems
- · Adding Power and System Devices

## **Creating a Plumbing System**

- Understanding Plumbing Systems
- · Working with Plumbing Systems

## **Creating a Fire Protection System**

- Understanding Fire Protection Systems
- Designing the Fire Protection System

#### **Creating Construction Documents**

- Dimensioning
- Modifying Dimensions, Tags
- Creating Detail Views, Adding Sheets

## **Creating Families and Worksharing**

- Understanding Massing Concepts
- Editing a Massing Geometry
- Creating Masses in the Conceptual Design Environment
- Worksharing Concepts

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## Autodesk Revit Structure 2016

**Autodesk Revit Structure 2016 The Complete Guide** is designed to give you a solid understanding of Revit Structure features and capabilities, from the basics through advanced and complex 3D modeling components.

This course emphasizes on physical modeling, analytical modeling, rebar modeling, and quantity scheduling. Also, the course covers the various stages involved in analyzing the model in Robot Structural Analysis software. This course is specially meant for professionals and students in structural engineering, civil engineering, and allied fields in the building industry.

## User's prerequisites

You don't need any previous experience with Autodesk® Revit to take this course.

#### **Course Outline**

#### **New for Revit Structure 2016**

- Revit Multi-Disciplinary Improvements
- Revit Structure Improvements

#### **Introduction to Autodesk Revit Structure**

- · Basic Concepts and Principles
- The Revit Structure User Interface
- Building Information Modeling and Revit Structure, Getting Help

## **Getting Started with a Structural Project**

- Starting a New Structural Project
- · Snaps Tool, Opening, Saving and Closing a Project
- Options Dialog Box

#### Setting up a Structural Project

- · Creating Project Templates
- · Using Levels
- · Using Grids
- Working with Reference Planes

#### **Structural Columns and Walls**

- · Structural Columns
- Structural Walls

#### Foundations, Beams, Floors, and Open Web Joists

- Understanding Foundations
- Adding Foundations
- Structural Floors
- · Beams and Open Web Joists

#### **Editing Tools**

- · Creating Selection Sets
- · Moving and Copying
- · Rotating, Mirroring and Arraying
- · Additional Editing Tools, Creating Groups

## **Documenting Models and Creating Families**

- Dimensioning
- · Adding Text and Tags
- · Creating Families

#### Standard Views, Details, and Schedules

- Standard Views
- Callout Views
- · Drafting Details
- Graphical Column Schedules
- 3D Views, Sheets, Analysis, Reinforcements, and Massing

#### 3D Views, Generating Shadows and Solar Studies

- · Working with Sheets
- Understanding the Analytical Model
- · Working with Analytical Models
- · Adding Reinforcements, Linking Building Models
- Introducing Massing
- · Editing Massing Geometry
- · Creating Building Elements from Massing Geometry

#### **Linking Revit Models with Robot Structural Analysis**

· Linking Revit Models with Robot Structural Analysis

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## Autodesk Showcase 2016

Autodesk Showcase 3D Visualization and Presentation software provides tools and features to create realistic renderings, which in most cases occurs real-time. Explore different designs by presenting your models in different positions, views, and with different colours, materials, and textures. As Showcase has no model creation tools of its own you can import models from a wide range of 3D modeling systems and from neutral file formats.

**Autodesk Showcase The Complete Guide** is specifically aimed at experienced software users looking for advanced skills instruction and introductions to more specialized software. Our on-screen instructors walk you through the processes step by step, allowing you to follow along hands-on if you wish; quickly and easily picking up the new skills you need.

## User's prerequisites

You don't need any previous experience with Autodesk® Showcase to take this course.

## **Course Outline**

#### **Introduction to Autodesk Showcase**

- Introduction to Autodesk Showcase
- · Working with Data

## **Working with Your Models**

- · Working with Objects
- · Using the Organizer

#### Scenes and the Environment

- Shots
- · The Environment, Lights, and Shadows

## Materials

- Applying Materials
- · Editing Materials and Applying Decals

#### **Presenting Your Scene**

- · Alternatives and Cross Sections
- Behaviors
- Storyboards
- · Presentation Options

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## Autodesk Simulation Mechanical 2016

**Autodesk Simulation Mechanical The Complete Guide** is designed to give you a solid understanding of Autodesk Simulation features and capabilities. Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples.

You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning the steps to start a Simulation project, exporting and importing Geometry, working with equipment in the drawing, using Meshing techniques, creating and editing joints and Contacts, and analyzing the model and producing results.

## User's prerequisites

You don't need any previous experience with Autodesk® Simulation to take this course.

#### **Course Outline**

### Introduction to FEA

- · Introduction to FEA
- Types of Analysis and Theories of Failure
- · Introduction to Autodesk Simulation Mechanical
- · Introduction to Autodesk Simulation Mechanical

#### **Getting Started With Autodesk Simulation Mechanical**

- Setting the Unit System
- Important Environments of Autodesk Simulation Mechanical
- Short Cut Menus, Color Schemes and HotKeys

#### **Importing and Exporting Geometry**

- Introduction and Importing and Splitting Splitting Surfaces Of CAD Model
- · Simplifying the Model Geometry Before Importing
- Importing, Saving and Exporting FEA Model
- · Archiving FEA Model
- Understanding the Drawing Display TOOLS
- Changing the View Using the View Using ViewCube
- Navigating the Model using Steering Wheels and Controlling the Display of Models
- Importing the Inventor Assembly File Tutorial
- Importing a SolidWorks Assembly File Tutorial
- · Importing a STEP File Tutorial

## **Creating and Modifying Geometry**

- · Creating and Modifying Geometry and Selection Methods
- Creating 2D Sketched Geometry
- · Editing and Modifying Geometry

#### Meshing

- · Generating Mesh
- · Viewing the Meshing Results
- Eliminating Unmatched and Multi-Matched Feature Lines
- · Generating 2D Mesh
- · Unmatched and Multi-Matched Feature Lines

#### Meshing 2

- · Creating Refine Mesh
- · Editing Refinement Points

## **Working with Joints and Contacts**

- Introduction and Creating Joints
- Creating Bolted Connection
- Working with Contacts

#### **Defining Materials and Boundary Conditions**

- · Introduction and Assigning Material
- Managing Material Libraries
- Boundary Conditions Part 1
- Boundary Conditions Part 2
- Boundary Conditions Part 3
- Boundary Conditions Part 4

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#### **Performing Analysis and Viewing Results**

- Introduction to Performing Analysis and Viewing Results
- Performing Analysis and Viewing Results
- Reviewing the Displacement Results
- Reviewing the Stress Results
- Reviewing the Strain Results
- Reviewing the Reaction Force Results
- Reviewing the Current Result for Nodes, Faces and a Part
- · Adding Probes and Reviewing Results in Graphical Path Format
- Modifying Legend Properties and Displaying Loads and Constraint
- · Creating and Generating Report

#### **Advanced Structural Analysis**

- Introduction to Advanced Structural and Dynamic Analysis
- Nonlinear Analysis



# Autodesk Vault Basic 2016

**Autodesk Vault Basic 2016 The Complete Guide** is designed to give you a solid understanding of Autodesk Vault 2016 features and capabilities. Vault data management software helps organize, manage, and track data creation, simulation, and documentation processes - for design, engineering, and construction teams.

You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning about Working with Files, Vault Administration, and Extended Tools and Workflows.

## User's prerequisites

You don't need any previous experience with Autodesk® Vault to take this course.

## **Course Outline**

## **Using Autodesk Vault**

- · Introduction to Autodesk Vault
- · Working with Files

#### **Working with Microsoft Office**

· Working with Microsoft Office

## **Working with AutoCAD**

· Working with AutoCAD

#### **Working with Inventor**

· Working with Inventor

## **Working with Files**

- · Data Management
- Data Management (Part 2)

#### **Vault Administration**

· Vault Administration

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## Autodesk Vault Professional 2016

**Autodesk Vault Professional 2016** is designed to give you a solid understanding of Autodesk Vault 2016 features and capabilities. Vault data management software helps organize, manage, and track data creation, simulation, and documentation processes - for design, engineering, and construction teams.

You'll follow a workflow-based approach that mirrors the development of projects in the real world, learning about Working with Files, Vault Administration, and Extended Tools and Workflows.

## User's prerequisites

You don't need any previous experience with Autodesk® Vault to take this course.

#### **Course Outline**

#### **Using Autodesk Vault**

- · Introduction to Autodesk Vault
- · Working with Files

#### **Working with Microsoft Office**

· Working with Microsoft Office

## **Working with AutoCAD**

· Working with AutoCAD

## **Working with Inventor**

· Working with Inventor

## **Working with Files**

- · Data Management
- · Data Management (Part 2)

## **Vault Administration**

Vault Administration

## **Extended Tools and Workflows**

- · Data Management
- · Additional Vault Tools

#### **Behaviours**

- Vault Behaviors
- · Working with Behaviors

#### **Behaviour Administration**

- · Configuring Behaviors
- Reports
- Reporting

## **Custom Objects**

· Working with Custom Objects

## Items

- · The Item Master
- Files and Items
- · Bills of Materials

## Item Behaviours

- Item Lifecycles
- · Item Administration

#### **Change Orders**

· Vault Change Orders

## **Sharing with Others**

- · Vault Web Client
- Autodesk Buzzsaw and PLM 360

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# Autodesk Vault Workgroup 2016

**Autodesk Vault Workgroup 2016** is designed to give you a solid understanding of Autodesk Vault 2016 features and capabilities. Vault data management software helps organize, manage, and track data creation, simulation, and documentation processes - for design, engineering, and construction teams.

You'll follow a workflow-based approach that mirrors the development of projects in the real world, learnig about Working with Files, Vault Administration, and Extended Tools and Workflows.

## User's prerequisites

You don't need any previous experience with Autodesk® Vault to take this course.

#### **Course Outline**

#### **Using Autodesk Vault**

- · Introduction to Autodesk Vault
- · Working with Files

#### **Working with Microsoft Office**

· Working with Microsoft Office

#### Working with AutoCAD

· Working with AutoCAD

## **Working with Inventor**

· Working with Inventor

#### **Working with Files**

- · Data Management
- Data Management (Part 2)

#### **Vault Administration**

Vault Administration

#### **Extended Tools and Workflows**

- Data Management
- Additional Vault Tools

#### Rehaviours

- · Vault Behaviors
- Working with Behaviors

#### **Behaviour Administration**

· Configuring Behaviors

#### Reports

· Reporting

#### **Custom Objects**

· Working with Custom Objects

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## BIM 101 - Introduction

Building Information Modeling (BIM) is an organizational, a philosophical, and a strategic change to the construction industry. How BIM is embraced within a firm is largely left up to those interpreting this philosophy into practice. With the idea that a learner learns best through repetition, BIM 101 introduces the foundational concepts so that in subsequent courses designed for specific stakeholders we can review more specifically how that concept applies—rather than introduce the concept.

By the end of the **BIM 101 Introduction** course, you will be able to clarify BIM misconceptions by discussing why they exist and the realities of the industry, define BIM as a process, and develop and understanding of why BIM and Revit are not synonymous terms, introduce the benefits of modeling for the various stakeholders in the architecture, engineering, construction and operations industry, and present the industry standard tools previously developed to manage the BIM process within the industr

#### **Course Outline**

#### **Getting Started**

- Introduction to BIM 100 Series
- Introduction
- · What makes a successful BIM?
- · What is Revit?

#### **Benefits of Modeling**

- Introduction
- Benefits to Design Teams
- Benefits to Construction Document Specialists
- · Benefits to Owners and Facility Managers

#### The BIM Process

- New Construction vs. Renovation
- BIM Project Execution Plans
- Facility BIM Development Plans

#### Conclusion

- Conclusion
- · BIM 101 Introduction to BIM

## **About the Expert**

Megan Johnson is an AIA registered architect and avid academic who is the BIM Director for an architecture firm in Virginia. She has trained thousands of individuals to use Revit in a BIM-sawy manner over the past ten years. She has spoken internationally and has been published several times in publications like the Journal of the National Institute of Building Sciences.

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## BIM 102 - Collaborative BIM

The **BIM 102 - Collaborative BIM** course elaborates on the concepts of BIM 101 with a focus on the language of collaboration. BIM 101 introduced the concepts; BIM 102 frames those concepts within the realm of communication and collaboration. The goal of focusing on collaboration is to help prepare the learner to implement BIM in their organization or assess and improve their previous implementation.

By the end of this course, you will be able to describe how BIM enhances communication and adds more value to a project than with traditional processes, define the Levels of Development and describe how these terms support communication and collaboration, assess your own organization's template needs and develop their standards according to the National BIM Standard, and discuss the concept of Collaborative BIM and successfully integrate the concepts into projects.

#### **Course Outline**

#### Introduction

· Welcome to BIM 102

#### **General Process**

- Review of the Basics
- · The Modeling and Collaborative Process
- Terminology

#### **Level of Development**

- · What is Level of Development
- · LOD Further Explained
- · Managing the LOD

#### **BIM Standards**

- · National BIM Standards
- Establishing Modeling Standards
- · COBie and Open Data Standards
- Assessing your Organization

#### Collaborative BIM

- · Defining Collaborative BIM
- · Integrating BIM in Projects
- · Avoiding Rabbit Holes and the inevitable Punt

#### Conclusion

Conclusion

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## BIM 110 - BIM for Architects

The **BIM 110 - BIM for Architects** course is divided into two sections: the BIM-savvy architect and the Design Intent Model. This is to focus on both the interpersonal and technical skills needed—the hard and soft skills respectively. Sometimes you will find soft skills discussed when reviewing technology or hard skills discussed with reviewing interpersonal collaboration. This is what makes BIM so challenging—it's hard to separate the two concepts. A strong, BIM-savvy organization requires an understanding of both.

By the end of this course, you will be able to: describe an architect's role in the BIM process and expand on the BIM toolset skills needed by the architect, list the model development minimums of the Design Intent Model, identify how the Design Intent Model becomes the Record Model, and discuss data integration in Existing Conditions, Design Intent Models, and Record Models.

#### **Course Outline**

#### **Getting Started**

• Introduction

## The BIM Savvy Architect

- Educating the Owner
- · Working with the Contractor
- · Model Development Minimums of Design Intent Model

## The Data of the Design Intent Mode

- · Reconciliation and Record Model
- · Setting Up the Existing Condition
- · Architects and Data

#### Conclusion

· Conclusion for Architects

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## BIM 120 - BIM for Contractors

The **BIM 120 2017-BIM for Contractors** course is divided into two sections: the BIM-sawy contractor and the Construction Model. This is to focus on both the interpersonal and technical skills needed—the hard and soft skills respectively. Sometimes you will find soft skills discussed when reviewing technology or hard skills discussed with reviewing interpersonal collaboration. This is what makes BIM so challenging—it's hard to separate the two concepts. A strong, BIM-sawy organization requires an understanding of both.

By the end of this course, you will be able to describe a contractor's role in the BIM process, define the term "Federated Model," describe the involvement of the Subcontractor in Design Assist, identify how Integrated Project Delivery and Building Information Modeling work to enhance the contractors bottom line, and list strategies for hosting a successful Lean BIM Coordination meeting.

#### **Course Outline**

#### **Getting Started**

Introduction

#### The BIM Savvy Contractor

- · Types of Contractors
- CM-BIM Exam
- · Additional Model Uses
- Design Assist Phase

## The Construction Model

- · Navisworks and the Federated Model
- · BIM Coordination Meetings
- Field Application and Informational Data

#### Conclusion

· Conclusion for Contractors

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# BIM 130 - BIM for MEP Engineers

BIM has been called many things: a paradigm shift, a disruptive innovation, and a new market segment. The fundamental similarity in all of these classifications is that BIM has changed the way the construction industry does business. These changes can be felt in the largest of scopes to the most granular of activities. In **BIM 130 - BIM for MEP Engineers**, we stated that most BIM projects follow the same paths, while at the same time each BIM project tends to be unique within that path. In this course, we will focus on how BIM as a paradigm shift has impacted MEP Engineering firms.

By the end of this course, you will be able to identify owner types with whom the engineer can develop Collaborative BIM relationships, identify how the integration of calculations can complicate the use of design intent models as reusable Record Models, describe an engineer's developing relationship with subcontractors during Design Assist, and define Fabrication Level Modeling as well as how it is different than design intent modeling.

#### **Course Outline**

#### **Getting Started**

Introduction

## The BIM Savvy Engineer

- · Educating the Owner
- Working with the Subcontractor
- Model Development Minimums of Design Intent Models

#### The Design Intent Mode

- · Calculations and Fabrications
- · Reconciliation and Record Models
- Engineers and Data

#### Conclusion

· Conclusion for MEP Engineer

## **About the Expert**

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## BIM 140 - BIM for the Owner's Team

BIM has been called many things: a paradigm shift, a disruptive innovation, and a new market segment. The fundamental similarity in all of these classifications is that BIM has changed the way the construction industry does business. These changes can be felt in the largest of scopes to the most granular of activities. In past courses, we stated that most BIM projects follow the same paths, while at the same time each BIM project tends to be unique within that path. In this course, we will focus on how BIM as a paradigm shift has impacted the owner's team.

By the end of **BIM 140 - BIM for the Owner's Team** course, you'll be able to describe the benefits of a BIM process from an owner's point of view, describe the owner's team and how a BIM Commissioner can help support their BIM goals, identify requirements of a BIM sawy RFP, the digital templates, and BIM project documents, and review the available National BIM Standards supporting the efforts of the BIM sawy owner.

#### **Course Outline**

## **Getting Started**

• Introduction

#### The BIM Savvy Owner

- Benefits to Owners and Facility Managers
- Skills of the Owner's Team
- Who is on the Owner's Team?

#### The BIM Savvy Process

- · From Contracts to Facility Maintenance
- · Templates to Documents
- National Standards

#### Conclusion

Conclusion for Owners

## **About the Expert**

Megan Johnson is an AIA registered architect and avid academic who is the BIM Director for an architecture firm in Virginia. She has trained thousands of individuals to use Revit in a BIM-sawy manner over the past ten years. She has spoken internationally and has been published several times in publications like the Journal of the National Institute of Building Sciences.

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# BIM 150 - BIM for Structural Engineers

BIM has been called many things: a paradigm shift, a disruptive innovation, and a new market segment. The fundamental similarity in all of these classifications is that BIM has changed the way the construction industry does business. These changes can be felt in the largest of scopes to the most granular of activities. In the past course, we stated that most BIM projects follow the same paths—while at the same time—each BIM project tends to be unique within that path. In this course, we will focus on how BIM as a paradigm shift has impacted structural engineers.

By the end of **BIM 150 - BIM for Structural Engineers** course, you should be able to describe how the tools of 3D modeling effectively support the structural engineering practice, describe how BIM objects within a structural model are universally standardized to support a strong digital lifecycle, describe how structural engineers can strategically partner with a detailer to enhance their BIM capacities, and define concurrent engineering and explain how the process can enhance construction timelines.

#### **Course Outline**

#### **Getting Started**

• Introduction

#### The BIM Savvy Structural Engineer

- · A Clear BIM Direction
- Model Development Minimums of Design Intent Models
- · Fabrication and Detailing

#### The Design Intent Model

- Reconciliation and Record Models
- Structural Opportunities

#### Conclusion

· Conclusion for Structural Engineers

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# **BIM Acronyms**

BIM as a concept and process has evolved, and the way AEC professionals use terminology is an important part of ensuring consistency amongst all projects. Acronyms—in the context of BIM—are complex and involved. By the end of this 1-hour mini course, you will be able to describe the importance of BIM acronyms, be familiar with a variety of BIM acronyms, and be able to use BIM acronyms in your projects to communicate more effectively.

#### **Course Outline**

#### **BIM Acronyms**

- Overview
- · BIM Acronyms A I
- BIM Acronyms K T
- Summary

#### About the Author - Rebecca De Cicco

Rebecca has always had a keen interest in digital technologies and how they can radically change the way we work and interact with one another. Having studied and worked in Australia as an Architect the basis for her experience always involved managing and training teams to utilize this technology and interact with those ready and willing for change to enable a more efficient workflow.

Rebecca lived in the UK for almost 10 years and following a series of successful senior roles in varied architectural organizations, Rebecca now manages her own consultancy, Digital Node, providing advice and insight to construction professionals all over the world on advanced digital solutions on projects as well as implementation and management processes. It is with this knowledge that she can communicate, train and manage teams in a BIM environment as well as ensure her knowledge is spread throughout the industry within education and focused groups.

Rebecca works with Building Smart UK, sits on the Autodesk Developer Network and feedback community and supports the London BIM initiative within the BIM Regions that help support and grow an industry. She is also a strong advocate for diversity and young people (having been part of a future focused industry group, BIM2050) and also teaches, mentors and trains young people regarding future processes and BIM. Her interest in training and upskilling also involved a strong social media presence for herself (@becdecicco), her organization (@digital\_node) and finally her diversity group (@womeninBIM).

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## **BIM** Fundamentals

**BIM Fundamentals** is a 1-hour course that will provide you with the key information required to support all stages of a Building Information Modelling (BIM) project—from design through to operation. By the end of this course, you'll be able to define BIM, describe how BIM can provide great benefits to a project, explain why it is critical to implement BIM, and list potential solutions for BIMs' greatest challenges.

#### **Course Outline**

#### What is BIM?

- · Learning Objectives and learning outcomes
- · What is BIM?
- · BIM The Basics
- BIM Definitions
- BIM during Design, Construction and Operation
- · Client Responsibilities
- The Importance of a Whole Life Approach

#### Why BIM?

- · Why BIM?
- · BIM vs a Traditional Methods
- BIM and the future of Construction
- · Skills and Opportunities
- Stakeholder Engagement

#### Benefits of BIM

- Benefits of BIM Overview
- · Benefits of BIM Client Side
- · Benefits of BIM Design
- Benefits of BIM Construction
- Benefits of BIM Whole Life
- Benefits of BIM In use / Asset Management
- Benefits of BIM Buildings & Infrastructure

#### Challenges of BIM

- · Challenges of BIM Overview
- · BIM Implementation Organisational
- BIM Implementation Project
- BIM Costs
- Cultural Challenges

- · People, Process & Technology
- · Regional Differences
- A staged approach
- Skills Shortages

#### About the Author - Rebecca De Cicco

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# BIM & Collaborative Working

The BIM and Collaborative Working course will address how the principles of collaborative working can support BIM and its related processes. Collaborative working is a critical part of BIM and can contribute to positive outcomes for either an owner or a project team by allowing transparent and open communication at all times.

By the end of this course, you'll be able to recognize the importance of collaborative working in the context of a BIM project, discuss the use of the British Standard 11000 to support an organizations collaborative working principles, and implement collaborative working within your organization.

#### **Course Outline**

#### **BIM and Collaborative Working**

- Collaborative Working Basics Principles
- Responsibilities for Collaborative Working
- BS11000 Principles Toward Collaborative Working
- · Collaborative Working and BIM

#### About the Author - Rebecca De Cicco

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## **BIM Commercials**

The BIM Commercials course will discuss how the commercial nature of a project is ultimately affected when BIM becomes part of the process. Commercial risks and processes should be understood by all parties working on a project to provide an environment free of risk and ambiguity.

## **Course Outline**

#### **BIM Commericals**

- The Commercial Impacts of BIM
- · A Contractual Framework
- BIM and Professional Indemnity Insurance
- · Post Occupancy Evaluation

#### About the Author - Rebecca De Cicco

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## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# **BIM** Dimensions and Documents

**BIM Dimensions and Documents** course that addresses how BIM documents should be managed and used across a project, as well as the BIM dimensions, which relate to all project BIM uses. It is imperative that BIM dimensions are understood so that BIM uses can be clearly documented. By the end of this course, you'll be able to describe the BIM dimensions and how they relate to all project processes, as well as how to document and manage them over a project lifecycle.

# **Course Outline**

### **BIM Dimensions & Documents**

- · BIM Dimensions and Uses Overview
- BIM Dimensions
- · BIM Key Documentation

### About the Author - Rebecca De Cicco

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# BIM During An Asset Lifecycle

The BIM During An Asset Lifecycle course will describe the importance of BIM during the asset lifecycle phase of a built asset. BIM as a process can provide great benefits during the design and construc@on stages, but the main benefits can be seen well into opera@on of a facility. It is therefore crucial to ensure that the fundamental nature of how an asset is managed and func@ons during its life be addressed by the owner.

### **Course Outline**

#### **BIM During an Asset Lifecyle**

- · BIM and the Asset Lifecycle
- Client Strategic Approach Toward BIM
- Maintaining Asset Data Within the CDE
- · Security and Managing Data into Operation

#### About the Author - Rebecca De Cicco

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# BIM Global Differences

BIM Global Differences course that addresses the global impact of BIM, giving examples of three differing regions—the US, Singapore and the UK. You will learn the basics of BIM implementation in those regions and begin to understand, in context, where BIM is being developed and has further weight globally in regard to skills and project experiences. By the end of this course, you'll be able to describe the global impacts of BIM, summarize how the USA, Singapore, and the UK have implemented BIM, and explain how BIM standards are being developed.

### **Course Outline**

#### Global BIM

- · Learning Objectives and Learning Outcomes
- · Overview
- · Standards supporting BIM
- Working across differing regions
- The importance of International Standards

#### BIM in the USA

- Overview
- History
- Policy
- Standards

#### BIM in the UK

- Overview
- History
- Policy
- Standards

#### **BIM Singapore**

- Overview
- History
- Policy
- Standards

### About the Author - Rebecca De Cicco

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# BIM Roles and Responsiblities

The BIM Roles and Responsibilities course will support how roles and responsibilities, which align to BIM, can be procured and appointed on a BIM project. Roles that have been developed in the industry are a direct result of the development of local and international standards all supporting BIM delivery.

### **Course Outline**

### **BIM Roles and Responsibilities**

- · Overview of Roles
- Client Driven Roles
- · Supplier Roles
- · Role of Information Management

### About the Author - Rebecca De Cicco

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# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# **BIM** Terminology

BIM Terminology course, which reviews the terminology required to understand BIM in a global context—with specific reference to terms used in the UK and U.S. Terminology is an important part of a successful BIM project as all participants must understand the basic terms and use of these terms to work effectively and intelligently together. By the end of this course, you'll be able to describe the main BIM terms and references and summarize how they can aid in the planning and management of a BIM project.

# **Course Outline**

### **BIM Terminology**

- · BIM Terms Overview
- · BIM Terminology Strategy Stage
- · BIM Terminology Project Planning
- BIM Terminology Operational Phase
- BIM Uses
- · LOD Overview

# About the Author - Rebecca De Cicco

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### EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# The Importance of Data

The Importance of Data course will describe the importance of data during all stages of a built asset lifecycle. Data is shared, managed and created across a project, and the accuracy and validity of the data is crucial for an intelligent project to be undertaken. Clearly defining the data that is required—across all stages of a project—requires planning and thought, and this course will explain how this can be achieved.

### **Course Outline**

### The Important of Data

- · Data and the Construction Industry
- · Owner Strategy
- · Information Exchange and COBie
- · Data and CDE
- Security and Management of Data into Operation

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# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Bluebeam Revu Fundamentals

Bluebeam Revu is an award-winning software application that allows you to create, edit, markup, and collaborate using PDFs. In this course, you'll learn how to use Bluebeam Revu's core features on a basic level. After taking this course, you will be able to create, assemble, and work with PDFs, add markups to your PDFs, save your commonly used markups and markup properties to Bluebeam's patented "Tool Chest," create, edit, and apply stamps to your PDFs, and track, sort, and filter your markups and stamps in the "Markup List."

# User's prerequisites

You don't need any previous experience with Bluebeam Revu to take this course.

### **Course Outline**

# **Getting Started**

- What is Bluebeam Revu?
- Open/Create PDFs
- The Bluebeam Revu Interface
- Tabbed Navigation

# **Working with PDFs**

- Accessing Files
- Search
- Document Manipulation
- Using the Thumbnails Tab
- Layers and Document Comparison

### Markups

- · Markup Basics
- · Line Tools
- Shape Tools

# • Pen Tools

- Text Tools
- Images and Snapshot
- Oddball Markups
- Using Grid and Snap
- Rotation, Snap, and Grid

#### Stamps

- Introduction to Stamps
- Making Your Own Stamps
- · Building a Stamp Library

#### **Tool Chest**

- · Introduction to the Tool Chest
- Tool Sets
- Organizing Your Tools

# **Markup List**

- Introduction to the Markup List
- Organizing Your Columns
- Filters
- Exporting Data (Summaries)

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Bluebeam Revu Intermediate

**Bluebeam Revu** is more than just a simple PDF manipulation and markup tool. It has an integrated network of features designed to help with workflows at all phases of construction.

The Bluebeam Revu Fundamentals course covered the core features: PDF Creation, Markups, The Tool Chest, and The Markup List. This intermediate course will take a deeper

look at these features, exploring tools like Batch PDF creation, Measurement markups, Sequences and Actions, and Custom Columns. Beyond Revu's core features, this course will also look at its document handling features, which helps streamline the organization of complex document sets, making it easier to handle revisions, hyperlinking, searching, and navigating through your sets. This course will also address Revu's Collaboration tools, which allow teams of users to work on the same document sets in real time.

# User's prerequisites

You don't need any previous experience with Bluebeam Revu to take this course.

# **Course Outline**

### A Deeper Look at the Core Features

- Introduction
- · PDF Creation with the Bluebeam Plugin
- Document Manipulation
- Markups
- Measurement Markups
- · Tool Chest
- Markup List

### **Document Handling**

- · Hyperlinks
- Bookmarks
- Sets

#### Collaboration

- Bluebeam Studio
- Studio Sessions
- · Studio Projects

### **Bluebeam Studio Administration**

- · Managing Users
- · Administering Sessions
- Administering Projects

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Grasshopper Level 1 (Twisty Tower)

Grasshopper is a graphical algorithm editor included with Rhino's 3-D modeling tools. Although programming or scripting knowledge is not a necessity, designers are able to build both simple and complex form generators.

**Grasshopper Level 1 (Twisty Tower)** is for users that have no prior knowledge of Grasshopper. The course will take you through the steps to develop your understanding

and knowledge of this visual scripting environment. By the end of this course, you'll be able to describe the functionality of Grasshopper, navigate the interface, generate Geometry and Primitives, and analyze buildings to obtain metric data.

# User's prerequisites

You don't need any previous experience with Grasshopper to take this course.

# **Course Outline**

#### Introduction

- · Introduction to Grasshopper
- Interface
- Components

#### Build

- Base
- Move
- Rotate
- Scale
- Surface
- Baking

### **Analysis**

- · Planes & Sections
- · Area & Display
- · Color By Area

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Rhino Level 1

**Rhino Level 1 (Beginner)** course is designed to give you a solid understanding of McNeel's Rhinoceros software basic features and capabilities. This course includes video demonstrations, quizzes and practical Let Me Try exercises, and accommodates all learning styles.

Rhinoceros is a versatile 3D modeler. It is used in computer-aided design (CAD), computer-aided manufacturing (CAM), rapid prototyping, and 3D printing within various fields, including architecture, industrial design, multimedia and graphic design. You will follow a workflow-based approach that mirrors the development of projects in the real world, learning Nurbs, Lines and Points, Nurbs Surfaces, Meshes and Model Organization.

# User's prerequisites

You don't need any previous experience with Rhino to take this course.

## **Course Outline**

#### Introduction to Rhino

- Introduction to Rhino
- · User Interface Tour
- Commands

#### **Introduction to NURBS Lines and Points**

- Points
- Line
- · Polylines
- Curves

### **Introduction to NURBS Surfaces**

- Surfaces
- Polysurface
- Solids

## Meshes

- · What is a Mesh?
- Complications
- Conversion

#### **Model Organization**

- What are Properties Layers>/li>
- Display
- · Grouping and Block

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Rhino Level 2

**Rhino Level 2 (Intermediate)** course is designed to give you a solid understanding of McNeel's Rhinoceros software intermediate features and capabilities. This course includes video demonstrations, quizzes and practical Let Me Try exercises, and accommodates all learning styles.

Rhinoceros is a versatile 3D modeler. It is used in computer-aided design (CAD), computer-aided manufacturing (CAM), rapid prototyping, and 3D printing within various fields, including architecture, industrial design, multimedia and graphic design. You will follow a workflow-based approach that mirrors the development of projects in the real world, learning Extended Editing Tools, Intermediate Modelling, 3D Drawing and Presentations.

# User's prerequisites

You don't need any previous experience with Rhino to take this course.

## **Course Outline**

### **Extended Editing Tools**

- Curves
- Surfaces
- Generic Tools
- · C-Plane
- · Analysis

### **Intermediate Modeling**

- Curves
- Surfaces
- Loft
- Boolean

#### Views

• Viewport

# 3D Drawing to 2D Modelling

- Working with Layouts
- Drawing

#### Presentations

- Annotations
- Printing

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Rhino Level 3

**Rhino Level 3 (Advance)** is designed to give you a solid understanding of McNeel's Rhinoceros software advanced features and capabilities. This course includes video demonstrations, quizzes and practical Let Me Try exercises, and accommodates all learning styles.

Rhinoceros is a versatile 3D modeler. It is used in computer-aided design (CAD), computer-aided manufacturing (CAM), rapid prototyping, and 3D printing within various fields, including architecture, industrial design, multimedia and graphic design. You will follow a workflow-based approach that mirrors the development of projects in the real world, learning Advanced Modelling, Rendering, Collaboration and Customization.

# User's prerequisites

You don't need any previous experience with Rhino to take this course.

## **Course Outline**

## **Advanced Modelling**

- · Cage Editing Surface
- Editing Surfaces
- Meshes
- Curves
- · Advanced Editing with Curves and Surfaces

# Views

· Camera

### Rendering

- Lighting
- Materials
- · Texture Mapping
- · Render Settings

## Collaboration

- Insert
- · Referenced Blocks
- Work Sessions

#### Customization

- Commands
- Tool Bar Layout

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Introduction to Primavera P6 Professional

In this course, you'll learn the steps to build schedules in P6—from the ground up. You'll be building your own schedules in no time! By the end of this course, you'll be able to create your first project, identify when and where to add WBS Activities, as well as how to link it all together, and build your own schedule.

# User's prerequisites

You don't need any previous experience with Primavera to take this course.

# **Course Outline**

# Introduc)on to Primavera P6 Professional

- · Get Started
- · Create a New Project
- · Activity Layouts in P6
- · Add and Link Activities
- XER Files in P6
- Workshop

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Cost Management in Primavera P6 Professional

In this course, planners and schedulers will learn how to incorporate any type of cost management into their project schedules in Primavera P6. By the end of this course, you'll be able to cost-load a project schedule, summarize various cost planning techniques and cost management concepts, describe the cost paradigm and the types of costs that P6 can and can't handle, and differentiate between Resource Costs and Expense Costs and identify when to use each.

# User's prerequisites

You don't need any previous experience with Primavera to take this course.

# **Course Outline**

## Cost Management in Primavera P6 Professional

- · Getting Started
- Resource Rate
- Cost Expense
- · Cost-Loading
- Workshop

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Essential Activity Codes in Primavera P6

In this course, you'll learn all you need to know to use Activity Codes in your P6 project. Let's say you need to filter all of the design activities in your Primavera P6 project—you need Activity Codes. Or perhaps you want to identify and track activities that belong to a subcontractor—you need Activity Codes. How about tallying costs of your subcontractors activities? Activity Codes again. By the end of this course, you'll be able to build custom codes and use them to tally costs, describe how Activity Codes help in the management of projects in Primavera P6, and use Activity Codes to code, identify, filter, and manage project data.

# User's prerequisites

You don't need any previous experience with Primavera to take this course.

# **Course Outline**

### **Essential Activity Codes in Primavera P6**

- · Getting Started
- Activity Codes
- Workshop

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Progress Updating in Primavera P6

In this course—which is an essential part of any Primavera P6 planners education—you'll learn all about progress updating in Primavera P6 and how to apply Actuals to a schedule. Progressing is a critical piece of the project lifecycle and it is critical to evaluaying your project's performance. By the end of this course, you'll be able to use Percent Complete in P6, summarize the capabilities of the Progress Spotlight tool, and build a special Layout for Progress Updates and progress each of Primavera P6s different Activity Types.

## User's prerequisites

You don't need any previous experience with Primavera to take this course.

### **Course Outline**

### Progress Upda)ng in Primavera P6

- Getting Started
- Progressing Updating Concepts
- · Building Layouts
- · Percent Complete Types
- · Spotlight Tool
- · Progressing a Milestone
- Activity Progressing
- · Resource & Cost-loaded Activities
- Level of Effort & WBS Summary
- Workshop

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# Project Baselines in Primavera P6

Without a compass you might not know where you are going. Without a project baseline, you won't know how your project is performing. In this course, you will learn about Primavera P6's excellent baseline features. Baselines allow us to compare our projects progress with an approved plan. Whether it be approved costs, approved scope, or an approved timeline, tracking to an approved project baseline is essential to knowing how well your project is going according to plan. By the end of this course, you'll be able to capture, work with, and compare the Primavera P6 baselines and use baselines to track your project performance from start to end.

# User's prerequisites

You don't need any previous experience with Primavera to take this course.

### **Course Outline**

# Project Baselines in Primavera P6

- · Getting Started
- · Creating a Baseline
- Project Baseline
- Building a Baseline
- Workshop

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# Resource Management in Primavera P6

In this course, you will learn that Primavera P6 is not only a powerful scheduling engine, but that it's a flexible Resource Management tool as well. By the end of this course, you'll be able to summarize P6's Resource Management capabilities—from managing a resource pool to assigning work to resources, define resources for your project tools to manage your resource pool, and resource-load a schedule.

# User's prerequisites

You don't need any previous experience with Primavera to take this course.

# **Course Outline**

### Resource Management in Primavera P6

- · Getting Started
- · Adding Resources
- · Assigning Resources
- Resource Over-allocations
- Workshop

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# Scheduling in Primavera P6

In this course, you'll learn all about the process of scheduling activities in Primavera P6. By the end of this course, you'll be able to describe how the Critical Path Methodology Scheduling algorithm works, work with a project deadline and explain how deadlines can affect your projects Critical Path, build calendars in P6, and use P6's Activity Constraints to adjust your projects dates around real-world events and deadlines. Happy Scheduling!

# User's prerequisites

You don't need any previous experience with Primavera to take this course.

# **Course Outline**

# Scheduling in Primavera P6

- · Getting Started
- · Project Deadlines
- Calendars in P6
- · Constraints in P6
- Activity IDs in P6
- Workshop

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Introduction to MicroStation Select Series 3

MicroStation is an architectural and engineering software package for the creation of 2D and 3D design. It is a product of Bentley Systems Inc. and is designed to work only within the Microsoft Windows Operating System.

**Introduction to MicroStation Select Series 3** is a 4-hour course designed for the user with little or no knowledge of MicroStation. By the end of this course, users will be able to describe the basic use of MicroStation in the design process, recognize the value of using MicroStation standardizing tools, and identify how the use of workspaces organizes the design process and ensures the use of established CAD standards.

# User's prerequisites

You don't need any previous experience with Microstation to take this course.

### **Course Outline**

#### **Getting Started**

- · Introduction to MicroStation
- · The Basics
- · Main Menu Bar
- · Toolboxes and Tools

# **Creating Elements**

· Creating Elements

#### Text

Text

#### **Dimensions**

Dimensions

#### Measuring

Measure Tools

#### Cells

Cells

# **Working With Existing Elements**

- · Working With Existing Elements
- · Grouping Elements

# **Combining Design Data**

· Combining Design Data

### **Printing**

Printing

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# SketchUp Basics 101

SketchUp Basic is the first in a series of courses to provide comprehensive training in the use of Trimble® SketchUp software. SketchUp is a 3D modeling computer program for a wide range of drawing applications such as architectural, interior design, civil and mechanical engineering, film, and video game design.

# Created in partnership with EpicBIM, SketchUp Basics covers:

- Setup (Getting Started)
- The User Interface
- · Getting comfortable with the different drawing tools

For anyone just starting out with SketchUp, or for seasoned SketchUp veterans, Global eTraining's SketchUp Basics is the training you need to make sure you get the most out of SketchUp. Learn Faster. Retain More. Save Time.

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# Solidworks

Solidworks is a parametric CAD software offers an easy-to-use set of tools for 3D mechanical design, and documentation. With a basic design, Solidworks is able to connect to multiple disciplines, easing the communication between designers, engineers, and producers.

**Solidworks The Complete Guide** is designed to give you a solid understanding of Solidworks features and capabilities from the basics through to advanced and complex 3D modeling components.

Every course is designed to use all learning styles from text, audio, video, interactivity, quizzes and practical "Let Me Try" examples. You'll follow a workflow-based approach, creating 2D drawings from 3D data, modeling parts, combining parts into assemblies, annotating drawings, using advanced assembly tools, working with sheet metal, presenting designs, and simulation.

# User's prerequisites

You don't need any previous experience with Solidworks to take this course.

### **Course Outline**

#### Introduction to SOLIDWORKS

- Introduction To SOLIDWORKS and Getting Started
- Menu Bar And SOLIDWORKS Menus
- Toolbar and Dimensioning Standards and Units
- Important Terms and Their Definitions
- Auto-Backup Option, Selecting Hidden Entities, Hot Keys and Color Schemes

#### **Drawing Sketches for Solid Models**

- · The Sketching Environment
- · New Document
- · Learning Sketcher Terms and Tools
- Drawing Lines
- Drawing Circles, Arcs, Rectangles and Parallelograms
- Drawing Polygons, Splines, Slots and Sketched Points
- Drawing Elipses, Elliptical Arcs, Curves and Deleting Sketched Entities
- Drawing Display Tools

## **Editing and Modifying Sketches**

- · Editing Sketched Entities
- Creating and Editing Patterns
- · Writing Text and Modifying Sketched Entities

# **Adding Relations and Dimensions to Sketches**

- · Applying Geometric Relations to Sketches
- Design Intent and Dimensioning A Sketch
- · Concept of a Fully Defined Sketch
- Deleting Overdefined Dimensions
- · Opening an Existing File

# Advanced Dimensioning Techniques and Base Feature Options

- Advanced Dimensioning Techniques
- Creating Base Features by Extruding and Revolving Sketches
- Dynamically Rotating the View of a Model
- Modifying the View Orientation and Restoring the Previous View

- Displaying the Drawing Area in Viewports and Display Modes
  of A Model
- Assigning Materials and Textures to Models

### Creating Reference Geometries

- Importance of Sketching Planes
- · Reference Geometry
- Creating Reference Points
- Advanced Boss/Base Options and Modeling Using the Contour Selection Method
- Creating Cut Features and Concept of the Scope Feature

### Advanced Modeling Tools-I

- · Holes, Rollouts and Threads
- Creating Fillets
- · Select Options
- Creating Fillets Using the FilletXpert
- · Creating Chamfers, Shell Features and Wraps

## **Advanced Modeling Tools-II**

- Creating Mirror Features
- Creating Linear Pattern Features
- Creating Circular Pattern Features
- Creating Table Driven Patterns, Variable Patterns and Rib Features
- · Changing the Display States

# **Editing Features**

- · Editing Features of a Model
- Features

## **Advanced Modeling Tools-III**

- Creating Sweep Features and Cut-Sweep Features
- Creating Loft Features
- Creating 3D Sketches

## **Advanced Modeling Tools-IV**

- · Creating Dome Features and Deform Features
- Creating Fastening Features
- Creating Freeform Features
- Dimensioning a Part Using DimXpert

#### Assembly Modeling-I

- · Assembly Modeling
- Creating Bottom-Up Assemblies and Top-Down Assemblies
- Moving and Rotating Individual Components and Assembly Visualization

## Assembly Modeling-II

- · Advanced Assembly Mates
- Mechanical Mates
- Creating Sub-Assemblies
- Deleting Components and Sub-Assemblies and Editing Assembly Mates
- · Editing Components and Sub-Assemblies
- Creating Patterns of Components in an Assembly
- Copy a Component Along with Mates

# Working with Drawing Views-I

- The Drawing Mode and Starting a Drawing Document
- Types of Views
- Generating Derived Views
- Working with Interactive Drafting in Solidworks and Editing and Modifying Drafting Views

# **Working with Drawing Views-II**

- · Adding Annotations to the Drawing Views
- · Adding the Bill of Materials (BOM) to a Drawing
- Adding Balloons to the Drawing Views and Creating Magnetic Lines
- Sheets



# Solidworks (cont'd)

# Course Outline (cont'd)

### **Surface Modeling**

- · Surface Modeling
- Surfaces

# **Working with Blocks**

Introduction to Blocks
Creating Mechanisms by Using Blocks

## **Sheet Metal Design**

- · Sheet Metal Design
- Creating Sheet Metal Components from a Flat Sheet
- Sheet Metal Parts and Forming Tools

# **Equations, Configurations, and Library Features**

- · Working with Equations
- · Working with Configurations
- · Library Features

### Motion Study

· Motion Study

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Attract and Retain the Best People

You're probably already experiencing a workforce shortage both with craft labor and management. How do you compete? What keeps people happy and motivated? What makes prospective employees choose your company over other companies? What makes employees choose to stay rather than leave? We are in the middle of a workforce crisis. How do you attract and retain the very best people? The Workforce Development course explores practical ways to attract and retain the very best people and give you practical ideas to implement immediately.

### **Course Outline**

- · Workforce Development
- Introduction
- · Issues in the Industry
- · Solutions for the Industry
- Radical Ideas
- · Attract and Retain the Best People

### **About the Author - Brent Darnell**

Brent earned his Bachelor's in Mechanical Engineering from Georgia Tech in 1981 and began his own construction career. He was an MEP Coordinator and Senior Project Manager on complicated projects like the Brook Army Medical Center and housing for the 1996 Summer Olympic Village. Because of these first-hand experiences, Brent speaks with a deep understanding of his audience and the problems they commonly face. His passion is to transform the industry into one that is more collaborative, more relationship driven, and more fun.

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## EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Communication Skills

Through this course, participants gain the essential basics of powerful and effective communication. They will learn the pitfalls of communication and how to communicate clearly. Participants will reap the benefits of effective communication and learn how to motivate and persuade others without resorting to the traditional command and control approach.

#### **Course Outline**

- Introduction
- · It Starts with You
- · Connect with Others
- · Communication Tools

### **About the Author - Brent Darnell**

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# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Diversity and Inclusions

Everyone has biases without exceptions. This course addresses those biases, gets at the heart of the matter of diversity and inclusion and endeavors to create true behavioral shifts to create a more diverse and inclusive industry through practical tools, exercises and simulations. This course will take you beyond EEO compliance and the avoidance of lawsuits. It is our hope that ten years from now, these conversations will be irrelevant.

The **Diversity and Inclusion in the AEC Industry** course addresses our most common biases, gets at the heart of the matter of diversity and inclusion, and endeavors to create true behavioral shifts to create a more diverse and inclusive industry through practical tools, exercises and simulations. This course will take you beyond EEO compliance and the avoidance of lawsuits. It is our hope that ten years from now, these conversations will be irrelevant.

#### **Course Outline**

- Introduction
- · The Business Case for Diversity and Inclusion
- · Conscious and Unconscious Bias
- Practical Steps to Promote Diversity and Inclusion

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# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# **Emotional Experience Creation**

Can your business sustain itself by competing on price alone? Have you cut your overhead and profit down to next to nothing and still find it hard to compete? Find out how to differentiate your company through creating a positive emotional experience instead of a reliable transaction. Find out how to tap into the intangible, emotional side of business to make your company stand out. Find out how to increase business opportunities without cutting cost. Look at case studies where companies have implemented emotional intelligence principles as a strategic initiative to improve business. You will leave with not only the principles, but also practical ideas to implement the very next day!

#### **Course Outline**

- Introduction
- · The Brain and How We Buy Stuff
- · Create a Positive Emotional Response
- · Best Practices

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# Emotional Intelligence

This foundation course focuses on the concept of emotional intelligence, how it is measured, how it can be improved, and the powerful results it has on successful projects and your company's bottom line. Enlightening and entertaining, this program shows participants their emotional profile and how to improve the areas that will benefit them the most.

### **Course Outline**

# Introduction to Emotional Intelligence in the AEC Industry

- Introduction to EI in the AEC Industry
- · How Emotions Affect Your Performance

#### Improve

· El Testing

#### Performance

- · Where Am I Now?
- · Where Do I Want to Be?
- · How Do I Get There From Here?
- · Case Studies of Improvements

#### **Bonus Materials**

- The People Profit Connection eBook 3rd edition
- The People Profit Connection Audio book 2nd edition
- Georgia Tech Podcast on Emotional Intelligence
- · The Tao of Emotional Intelligence Book and App.

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# Great Relationships

This course takes participants through each step of how to create and maintain positive business relationships. Participants will learn every aspect of effective communication from ways to introduce themselves, to that crucial first handshake. Brent shares valuable techniques such as how to remember names and the art of following-up. This program is a must for anyone who wants to learn how to effectively network and forge great relationships that will help create and drive future business.

# **Course Outline**

- Introduction
- Internal Focus
- · Connection Focus
- · Encounters With Others
- · How to Maintain Your Relationships

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# Innovation and Problem Solving

Technical construction people and creative thinking don't often go hand-in-hand—but they should. Creative thinking is essential to fostering innovation and leadership in every business. This is how companies will be able to face tomorrow's industry challenges. Through the use of hands-on exercises and improvisational storytelling, Brent helps teach technical-minded professionals how to improve the creative thought process in themselves and their companies and improve their leadership skills. He also covers a problem solving/design methodology from the Stanford "D" School that will enable companies to easily solve the toughest problems. This program is designed for any company that desires to inspire innovation and stay ahead of the curve in a competitive marketplace.

# **Course Outline**

- Introduction
- · Get Rid of Your Limitations
- · Open Up to Possibilities
- Problem Solving
- · Spark Creativity in You, Innovation in Your Company

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# Presentation Skills

This course shows participants how their body, face, voice, movement, and energy affect an audience. They will learn how to use these factors to create more effective, memorable presentations and also increase their effectiveness with one-on-one encounters. This presentation also examines the power of storytelling, the use of metaphors, the basics of rhetoric (creating powerful argumentation), and the use of status. This course goes far beyond learning to create inspiring speeches. It will give participants the tools to create a powerful presence so that they can have more influence on their projects and work environments.

### **Course Outline**

- Introduction
- How to Connect with Your Audience
- · How Your Present Yourself
- The Technical Stuff
- · Practice Presenting by Observing

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# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Safety Program Implementation

This course caters to the "highly independent" alpha males in the construction industry. Brent demonstrates how a simple focus on emotional competencies can turn your safety program around. By tapping into the emotional part of safety, your employees will naturally work safer, instead of rebelling against rules and policies. The business will reap the financial benefit of them doing so, allowing the company to build a well-respected reputation around this increasingly important metric. The issue isn't about your people knowing the safety guidelines; it's about being motivated to actually follow them. This program provides that motivation.

## **Course Outline**

- Introduction
- Primal Safety Program: A Step by Step Guide

#### **Bonus Materials**

- · Safety and The Primal Safety Program (ebook)
- Primal Safety Coloring Book (PDF)
- 52 Primal Safety Toolbox Topics

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# Stress Management

Participants will discover the powerful impact stress and burnout have on precision and decision-making. This course teaches you how to identify and combat stress triggers before they manifest in the form of low productivity, absenteeism, and illness. In addition, participants will learn to use powerful recovery techniques to create a healthy work environment and increase energy and productivity.

# **Course Outline**

- Introduction
- Symptoms and Consequences of Stress
- Activities to Offset Your Stress and Build in Recovery
- Lifestyle Choices for Less Stress and Better Health and Performance
- The Body Battery Inventory
- · How to Create a Healthy, Productive Life Filled with Meaning

#### **Bonus Materials**

· Guided Meditations - MP3s

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# Time Management

This course explores time management, and participants quickly learn that it has very little to do with time. We start with examining the big picture and long-term goals, then drill down, giving students powerful methods to handle all of the things that enter their world. We look at how to eliminate waste and how to handle time wasters such as emails, phone calls, drop-in visitors, and meetings. We also talk about the biggest time waster on the planet and how to avoid it.

# **Course Outline**

- Introduction
- The Physical Side of Time Management
- The Organizational Side of Time Management
- How to Eliminate Time Wasters and Clarify Your Tasks

#### **Bonus Materials**

· Holy Cr-p Meeting Bingo

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# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Training The Trainer

For any subject matter expert (SME), the day will inevitably come when they are asked to transfer that knowledge to others. This course is intended for SME's who are very knowledgeable in their field, but not well versed in best practices for training.

That required knowledge transfer may be in a live setting, or in the creation of learning content. No matter how it is presented, there are certain considerations that any prospective trainer can make - which will increase the ease of that knowledge transfer and provide a productive learning experience for the recipient.

### **Course Outline**

### **Getting Started**

- But I'm Not a Trainer, I'm Just Great at my Job
- · But Really....Why Me?
- · Bloom's Taxonomy of Training
- Bloom's Taxonomy of Educational Objectives

#### Learning Styles I

- The Felder-Silverman Learning Style Model
- Sensing Learners vs. Intuitive Learners
- · Visual Learners vs. Verbal Learners
- · Active Learners vs. Reflective Learners
- · Sequential Learners vs. Global Learners

### **Learning Styles II**

- · The VARK Modalities
- Visual (V)
- Aural / Auditory (A)
- Read / Write (R)
- Kinesthetic (K)
- Multimodality Learning Style Combinations

#### **Instructional Approaches**

- Active Learning
- · Active Listening
- · Cooperative Learning

#### **Learning Cycles**

- Lecture / Demonstration / Activity Learning Cycles
- Lecture
- Demonstration
- · Activity Assessments

### **Understanding the Class**

- · Synchronous Vs Asynchronous Learning
- Synchronous Training
- Asynchronous Training Which is Better?
- What is Blended Learning?
- · Flipping the Classroom

#### Preparation

- · Preparing your Training Material
- Preparing yourself to Train
- Preparing the Training Space
- Preparing your Trainees
- · The Trained Trainer

# EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



# Microsoft Access 2013

**Microsoft® Access The Complete Guide** provides training on all the essential functions of Access. This course covers introductory through advanced topics. In Unit 1 introduce students to the concept of a database and the four database objects: tables, forms, queries, and reports. Students design a database, use forms, build queries and create reports. In Unit 2 cover advanced topics related to the four objects, maintaining a database, and integrating Access with Word, Excel and Outlook. In Unit 3, students are introduced to complex forms, calculated controls, complex reports, sub-reports, database customization, splitting databases, customizing the user interface, and more.

The Microsoft® Office Complete Guide series has been designed from the ground up for Global eTraining's world-leading, online, on-demand GeT Interactive eTraining platform. With text from internationally recognized content matter experts, professional narration, video demonstrations by leading instructors, and Let Me Try exercises for users to get practical experience with the software, using downloadable datasets aligned with the presentation content.

# User's prerequisites

You don't need any previous experience with Microsoft® Access to take this course.

#### **Course Outline**

#### **Exploring Access**

- Defining Access Databases
- Exploring the Access Environment
- Introducing Objects & Exiting

### **Designing a Database and Creating Tables**

- · Designing & Normalizing
- · Linking Tables
- · Creating Tables
- · Retrieving Data

### **Working with Forms**

- · Form Design & Creation
- · Modifying Form Controls
- · Modifying Form Layout
- · Printing & Using Help

# **Querying a Database**

- Creating Select Queries
- Setting Query Criteria
- Sorting & Performing Calculations
- Creating Special Types of Queries

### **Using Reports to Display Information**

- Designing Reports
- · Modifying Reports
- · Exploring Other Report Tools
- Printing Reports

#### **Refining Table Design**

- · Creating and Modifying Relationships
- Modifying Table Structures
- · Formatting A Table Datasheet Layout
- · Setting Field Properties
- · Setting Lookup Fields with the Lookup Wizard

# **Customizing Input Forms**

- Creating a Main Form with a Subform
- · Adding Calculations to Forms
- Setting Properties to Assist and Control Data Entry

# **Creating Complex Queries**

- Creating and Running Action Queries
- · Identifying Advanced Query Features
- Creating and Running Parameter Queries
- · Creating a Calculated Field in a Query

### **Customizing Reports**

- Customizing Reports
- Adding a Subreport to a Main Report
- · Creating a Report from a Subreport
- Numbering Items in a Report
- · Creating Calculated Controls on a Subreport
- Setting Page Breaks and Customizing Controls
- · Analyzing Report Performance

#### **Customizing The Database Interface and Startup Options**

- Set Access Options
- Splitting a Database
- Customizing the Database Interface

# Importing and Exporting Data Using Word, Excel and

- Convert Access 2013 files to previous Access formats
- · Attaching Files to Database Records
- · Integrating Access with Word
- Integrating Access with Excel
- · Displaying Access Data on the Web

## **Maintaining a Database**

- Improving and Maintaining a Database
- · Creating Macros to Improve Efficiency
- · Managing Database Objects
- Analyzing and Documenting Databases
- Compacting and Repairing a Database
- Setting Database Security
- Exploring Microsoft Cloud Storage

### EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.

Volume discounts starting at just 5 users. Contact getstarted@globaletraining.ca for more information.

Global (1) eTraining

### Microsoft Excel 2013

**Microsoft® Excel The Complete Guide** provides extensive, thorough training of Excel. This course covers introductory through advanced topics, and is ideal for the computer user who wants to become well versed in using Excel. Topics introduced in Unit 1 include the Ribbon interface; entering and editing data; selecting cells and ranges; printing worksheets; creating formulas and functions; formatting cell contents; inserting and deleting columns, rows, and cells; charts; and more. Unit 2 covers such topics as large worksheets and workbooks; tables; outlines; inserting clip art, pictures and SmartArt; templates; digital signatures; and more. In Unit 3, students are introduced to PivotTables and macros, financial functions, data analysis, auditing and additional functions, advanced formatting and analysis tools, collaboration, and more.

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#### User's prerequisites

You don't need any previous experience with Microsoft® Excel to take this course.

#### **Course Outline**

#### **Exploring Excel**

- · Exploring Excel
- Exploring The Excel Program Window
- · Entering Data In Excel
- · Working With Numbers And Save Concepts

#### **Editing Worksheets**

- Opening Workbooks and Editing Entires
- · Selecting Cells and Ranges. and Cut. Copy, and Paste
- Undo and Redo, and Clearing Cell Contents and Formats
- Using AutoFeatures
- Using AutoCorrect

#### **Appearances of Worksheets**

- Exploring the Many Views Of Excel
- Editing Workbook Properties and Managing Worksheets
- Copying/Hiding Worksheets, and Modifying Columns/Rows

#### **Formulas and Functions**

· Working With Formulas and Functions

#### Formatting Cell Contents

- · Formatting Worksheets
- Text Control Options and Formatting Numbers
- Format Cells Dialog Box

#### **Charting Worksheet Data**

- Creating Charts
- Moving & Sizing Embedded Charts
- · Exploring and Modifying Charts
- · Applying Layouts
- Trendlines, Sparklines & Printing

#### Formatting Cell Contents, Advanced Skills

- · Working with the Format Painter and Quick Styles
- · Formatting with Themes
- · Inserting Date Functions and Formatting
- Creating Custom Formats and Working with Conditional Formatting
- · Naming Cells and Ranges

#### **Managing Multiple-Sheet Workbooks**

- Sorting Worksheet Data
- · Using Flexible Worksheet Views
- · Printing Multipage Worksheets
- Using Multiple Worksheets & Linking Cells and Formulas
- Using 3-D Cell References in Formulas
- Copying Worksheets
- · Printing Multiple-Sheet Workbooks

#### **Applying Advanced Functions and Data Analysis**

- Creating Formulas Using Criteria IF Functions
- Using Logical Functions in Formulas
- Using Functions to Format Text
- Creating Financial Functions
- · Using Data Analysis Tools

#### **Creating Tables and Outlines**

- Creating a Table
- Working with Tables
- Structured References & Enhanced Sorting and Filtering
- Using SUBTOTAL and Quick Analysis
- Using the Outline Feature and Displaying Subtotals

#### **Utilizing Graphics and Templates**

- · Using Illustrations & Inserting Pictures and Clip Art
- · Getting Into Shapes
- Illustrating with SmartArt and WordArt
- · Using and Customizing Templates

#### Using LOOKUP Functions, PivotTables, and Macros

- · Introducing Lookup Functions
- Creating PivotTables
- Creating PivotCharts and Macro Security
- Recording, Running and Assigning Macros

#### **Using Advanced Formatting and Analysis Tools**

- · Working with Grouped Worksheets
- Consolidating Worksheet Data
- · Working with Data Validation
- · Circling Invalid Data
- Removing Duplicate Records
- Tracing Formulas
- · Auditing Formula Errors
- · Using Data Tables

#### **Collaborating in Excel**

- · Creating Folders in Excel
- Inserting, Viewing, Positioning and Sizing a Comment
- Creating Hyperlinks
- Protecting Workbooks and Worksheets
- Creating Digital Signatures



# Microsoft Excel 2013 (cont'd)

#### Course Outline (cont'd)

#### **Sharing Workbooks**

- Preparing Workbooks for Distribution
- Sharing Workbooks Without a Network
- Tracking Changes to Workbooks
- Merging Multiple Workbooks
- Emailing a Workbook
- Importing Data via a Web Query
- Collaborating with SkyDrive and Office Web Apps

#### **Integrating Excel with Other Programs**

- · Maintaining Compatibility
- Converting Workbooks
- Merging with other MS Programs
- Importing External Data
- Saving Workbook Elements as a Webpage

#### EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



### Microsoft Outlook 2013

**Microsoft® Outlook The Complete Guide** uses a step-by-step, hands-on, skills-based approach to ensure student success. Compelling case studies demonstrate the relevance of the subject matter in practical situations. Topics include: The Ribbon interface; navigating in Outlook, setting email options, sending messages, attaching files, responding to messages, creating contacts, distribution lists, and creating notes, tasks and journal entries, and archive folders. Other topics included are Calendar sharing, snapshots, meeting cancellations, To Do Bar, calendar overlays, message attachments, search folders, color categories, rules, voting buttons and meeting update controls.

The Microsoft® Office Complete Guide series has been designed from the ground up for Global eTraining's world-leading, online, on-demand GeT Interactive eTraining platform. With text from internationally recognized content matter experts, professional narration, video demonstrations by leading instructors, and Let Me Try exercises for users to get practical experience with the software, using downloadable datasets aligned with the presentation content.

#### User's prerequisites

You don't need any previous experience with Microsoft® Outlook to take this course.

#### **Course Outline**

#### **Getting Started with Outlook**

- Introducing Outlook
- · Navigating the Outlook Window
- · Accessing Help

#### **Working with Email**

- Getting Started with Outlook Email
- Sending Messages
- · Handling Incoming Messages
- Organizing Messages

#### **Working with People**

- Managing People in Outlook
- · Working with Contacts
- · Working with Contact Groups
- · Staying Connected with People

#### Working with the Calendar

- Exploring the Calendar
- · Sharing and Publishing Calendars
- Printing Calendars
- · Working with Appointments and Meetings

#### Working with Notes, Tasks, and Integration

- · Working with Notes
- Working with Tasks
- · Working with the Folder List and Categories
- · Integrating with Word and Mobile Devices

#### **Formatting Message Content with Track Changes**

- · Formatting Message Content
- · Paragraph Formatting
- Styles
- Find & Replace

#### **Working with Message Attachments**

• Working with Message Attachments

#### **Using Search Folders**

· Using Search Folders

#### **Customizing Outlook**

· Customizing Outlook

#### **Message Options**

· Message Options

#### **Using Color Categories**

- · Using Color Categories
- Message Flags

#### Rules

- Rules
- · Junk Email
- · Desktop Alerts

#### Meetings

Meetings

#### **Using Voting Buttons**

· Using Voting Buttons

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### Microsoft PowerPoint 2013

**Microsoft® PowerPoint The Complete Guide** has been designed from the ground up for Global eTraining's world-leading, online, on-demand GeT Interactive eTraining platform. With text from internationally recognized content matter experts, professional narration, video demonstrations by leading instructors, and Let Me Try exercises for users to get practical experience with the software, using downloadable datasets aligned with the presentation content.

This course covers introductory through advanced topics. Topics introduced in Unit 1 include the Ribbon interface, document themes, bulleted lists, outlines, formatting text, printing presentations, transitions, clip art and graphics, charts, slide show delivery, and more. Unit 2 covers such topics as editing presentations, handouts, creating hyperlinks, multimedia and sound, tables, themes and slide masters, and more. In Unit 3, students are introduced to presentation connection techniques, online collaboration, cloud computing, transporting presentations, and more.

#### User's prerequisites

You don't need any previous experience with Microsoft® PowerPoint to take this course.

#### **Course Outline**

#### **Creating and Delivering a Presentation**

- Starting PowerPoint
- Document Themes
- Creating a Basic Presentation
- · Delivering the Slide Show and Getting Help

#### **Designing the Presentation**

- · Working with Slides and Outlines
- · Integration and Formatting
- · Format Painter and Slide Sorter
- · Organizing and Printing

#### Adding Graphics, Animation, and Sound

- · Online Pictures
- Adding Other Graphics
- · Transitions, Animation and Sound Effects

#### **Inserting Charts**

- · Inserting Charts
- Working with External Excel Documents
- · Creating SmartArt Diagrams

#### **Preparing a Presentation**

- · Preparing a Presentation
- Editing Your Presentation
- Printing Handouts
- Using Hyperlinks in Presentations
- Using the Slide Show Toolbar

#### **Adding Multimedia to Presentations**

- Adding Multimedia to Presentations
- · Using Audio in Presentations
- · Creating Slide Show Timings
- · Using Video in Presentations

#### **Using Tables in Presentations**

- · Using Tables in Presentations
- Customizing Tables

#### **Customizing Themes and Slide Masters**

- Customizing Themes and Slide Masters
- Using Slide Masters
- Using Action Buttons

#### **Connecting and Broadcasting Presentations**

- · Connecting Presentations
- Broadcasting Presentations

#### **Collaborating with Others Online**

- · Collaborating Online
- Sharing Files
- Working with Comments and Merging Presentations
- Using SkyDrive, Office Web Apps, and Reference Tools

#### **Transporting Presentations**

- Transporting the Presentation
- Preparing the Meeting Room
- · Following the Presentation Setup Checklist
- Preparing for Success
- Targeting Your Audience

#### **Integrating with Other Office Programs**

- Maintaining Compatibility with Previous Versions of Office
- Working with Word, Excel, and Outlook Integration

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Volume discounts starting at just 5 users. Contact getstarted@globaletraining.ca for more information.

Global (1) eTraining

## Microsoft Project 2013

**Microsoft® Project The omplete Guide** has been designed from the ground up for Global eTraining's world-leading, online, on-demand GeT Interactive eTraining platform. With text from internationally recognized content matter experts, professional narration, video demonstrations by leading instructors, and Let Me Try exercises for users to get practical experience with the software, using downloadable datasets aligned with the presentation content.

This course covers introductory through advanced topics. Students are introduced to what a project is, resources,task list, tracking progress, task durations, task dependencies, project statistics, managing resources, taskrelationships, project baselines, grouping and filtering tasks, and more.

#### User's prerequisites

You don't need any previous experience with Microsoft® Project to take this course.

#### **Course Outline**

## Beginning a New Project: Creating a Task List and Assigning Resources

- What Is a Project?
- Resources in Microsoft Project
- Managing the Task List

#### **Task Durations and Dependencies**

- · Calendars in Microsoft Project
- · Task Scheduling: Manual vs. Automatic
- · Task Durations
- · Project Milestones
- Task Dependencies and Linking Tasks
- More on Task Dependencies
- The Resource Information Dialog Box

#### **Managing and Assigning Resources**

- Checking the Project Statistics
- · Defining and Refining Resource Capacity
- Assigning Work Resources to Tasks
- Adding and Removing Resources to Tasks
- Managing Resource Costs
- Fine-tuning Working Time for Resources

#### **Finalizing the Project Plan**

- Defining Cost and Material Resources
- Entering Task and Resource Documentation
- Printing Reports and Views
- · Creating a Project Baseline

#### Tracking Progress in the Project Plan

- Tracking Progress as Scheduled
- Tracking Progress by Percentage Completed
- Tracking Progress by Entering Actual Values
- Comparing Actual Values to the Project
- · Tracking and Detail Gantt Views

#### **Refining Details for Assignments and Tasks**

- Modifying Task Relationships
- Creating Recurring Tasks
- · Changing the Task Type
- Changing Task Assignments
- Adjusting Task Costs with Variable Cost Rates
- Allocating Cost and Material Resources to Tasks
- Identifying Over- and Under-allocated Resources

#### Refining and Reorganizing the Project Plan

- Examining Resource Allocations Over Time
- Manually Resolve Over-allocations
- · Checking Statistics for Total Cost and Finish Date
- Sorting Tasks and Resources
- Grouping Tasks and Resources
- Filtering Tasks and Resources
- Customizing and Saving Tables
- · Customizing and Saving Views

#### **Updating and Viewing the Project Status**

- Setting the Elements of a Project Baseline
- Tracking Actual and Outstanding Work
- Updating Baselines
- Entering Actual Costs Manually
- Rescheduling Unfinished Work
- Identifying Slipping Tasks
- Scrutinizing Resource Costs and Their Impact
- Creating Views to Pinpoint Project Variance

#### Troubleshooting and Communicating the Project Plan

- · Assigning Overtime Hours
- Troubleshooting Time and Scheduling Issues
- Troubleshooting Task and Resource Cost Issues
- Formatting and Printing the Gantt Chart View, Timeline, and Network Diagram
- Printing Simple Views and Standard Reports
- Customizing Views and Reports
- · Creating Visual Reports in Excel and Visio

#### **Customizing Project**

- Using Project Templates
- Customizing the Quick Access Toolbar and Project Ribbons
- Copying Customizations to the Global Project Template
- · Recording and Editing Macros in Project
- Copying Project Data to Other Programs
- Opening Other File Types in Project
- Saving Project Files as Other File Type

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### Microsoft Publisher 2013

**Microsoft® Publisher The Complete Guide** has been designed from the ground up for Global eTraining's world-leading, online, on-demand GeT Interactive eTraining platform. With text from internationally recognized content matter experts, professional narration, video demonstrations by leading instructors, and Let Me Try exercises for users to get practical experience with the software, using downloadable datasets aligned with the presentation content.

This course covers introductory topics. Students are introduced to text boxes, picture boxes, picture effects, shapes, lines and arrows, blocks, styling, drawing and design objects, tables, mailing, editting and more.

#### User's prerequisites

You don't need any previous experience with Microsoft® Publisher to take this course.

#### **Course Outline**

#### **Introducing Microsoft Publisher**

- · Getting Started with Publisher
- · Publisher Setup
- · Exploring Publisher

#### **Text Boxes**

- · Working with Text Boxes
- · Styling

#### **Picture Boxes**

- · Working with Pictures
- · Picture Styles and Effects
- · Pictures and Text

#### **Drawing and Design Objects**

- · Shapes, Lines and Arrows
- Blocks

#### Tables

- · Creating Tables
- Table Design

#### Mailings

- · Understanding Mailings
- · Setting Up Mailings

#### **Finalizing Your Project**

· Editing

#### EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



### Microsoft Word 2013

Microsoft® Word Complete Guide provides extensive, thorough training of Microsoft® Word. This course covers introductory through advanced topics, and is ideal for the computer user who wants to become well versed in using Microsoft Word. Topics introduced in Unit 1 include the Ribbon interface, working with text, printing, using proofreading tools, creating bulleted and numbered lists, tables and forms, and more. Unit 2 covers such topics as newsletter columns, WordArt and clip art, document themes, styles, picture editing, and Mail Merge. In Unit 3, students are introduced to footnotes and endnotes, headers and footers, templates, tables of contents and indexes, Track Changes, macros, digital signatures, customization options, and more.

The Microsoft® Office Complete Guide series has been designed from the ground up for Global eTraining's world-leading, online, on-demand GeT Interactive eTraining platform. With text from internationally recognized content matter experts, professional narration, video demonstrations by leading instructors, and Let Me Try exercises for users to get practical experience with the software, using downloadable datasets aligned with the presentation content.

#### User's prerequisites

You don't need any previous experience with Microsoft® Word to take this course.

#### **Course Outline**

#### **Introducing Word Basics**

- · Starting Word
- · Working with the Word Interface
- · Saving and Exiting

#### **Creating and Editing Business Letters**

- · Inserting Text
- Editing Text

#### Creating a Memorandum and a Press Release

- Typing a Memorandum
- Page Breaks & Proofreading
- · Formatting & Using Find and Replace
- Navigating & Saving

#### **Creating a Simple Report**

- · Formatting Reports
- Indenting Text and Using Custom Tab Stops
- · Using Numbered and Bulleted Lists
- Formatting
- · Reference Tools

#### **Working with Tables**

- Tables
- Selecting Data & Cells
- Formatting & Sorting
- Performing Calculations & Sizing

#### **Creating a Research Paper**

- Research Paper Styles
- · Bibliographies and Captions
- Working with Templates

#### **Using Mail Merge**

- · Introducing Mail Merge
- Working with the Data Source
- Main Documents and Merging
- Merging Envelopes and Labels

#### Creating a Newsletter

- · Section Breaks and Word Art
- · Inserting Media
- Columns and Building Blocks
- Themes, Styles and Views

#### Creating a Promotional Brochure and a Form

- Working with Shapes
- Working with SmartArt
- · Formatting & Working With Forms

#### **Organizing Long Documents**

- Creating a Table of Contents
- Working with Multiple Headers and Footers
- Creating an Index
- Adding Cross-References
- · Managing Long Documents

#### **Collaborating in Word**

- · Using a Highlighter
- Tracking Changes to Documents
- · Reviewing Tracked Changes
- · Saving and Sending Files
- · Reviewing Changes from Multiple Reviewers
- Using AutoSave and AutoRecover
- Introducing SkyDrive and Office Web Apps

#### **Sharing and Securing Content in Backstage View**

- Preparing Documents for Sharing
- Controlling Document Access
- Attaching Digital Signatures to Documents

#### **Personalizing Word**

- Customizing Word Options
- · Using Document Properties
- Automating Word Tasks Using Macros
- Using the VBA Editor to Edit Macros

#### Integrating Word with Excel, PowerPoint, and the Web

- Embedding and Linking Excel Objects
- · Using Excel as a Mail Merge Data Source
- Creating Web Pages from Word Documents

#### EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



## Adobe Acrobat DC

**Getting Started With Adobe Acrobat DC** provides an understanding of viewing, creating, editing, and performing other actions with PDFs. This course focuses on creating PDFs from other sources, editing the content once converted, commenting on others work, and other methods of collaboration including utilizing the Adobe Document Cloud. Additionally, this course provides an introduction to Forms—a method of converting paper forms into a means of completing the form electronically from a wide range of devices.

#### User's prerequisites

You don't need any previous experience with Adobet® Acrobat to take this course.

#### **Course Outline**

#### **Getting Started with Adobe Acrobat**

- · Learning the Basics
- Getting Around a PDF

#### **Building PDFs**

- · Creating PDFs
- · Editing Pages

#### **Working With PDFs**

- · Edit the PDF
- Working With Scans

#### Collaboration

- Adding Markups and Comments
- PDF Export

#### **Doing More With Your PDFs**

- Data Protection and Optimization
- Forms

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## Adobe Illustrator CC Level 1

**Adobe Illustrator CC Level 1** course covers all the fundamental concepts and tools found in the Adobe program. It will allow you to provide design solutions for your company, clients, and yourself. To start, you will identify core concepts and familiarize yourself with the workspace and basic tools. Then, you'll create custom drawings and format them. You'll also learn how to organize objects and work with text. By the end of this course, you will be able to navigate the Illustrator environment, create and modify illustrations, and manage objects with layers and libraries.

#### User's prerequisites

You don't need any previous experience with Adobet® Illustrator to take this course.

#### **Course Outline**

#### Introduction

· About Illustrator

#### **Understanding the Workspace**

- · Workspace Fundamentals
- · Working with Panels and Windows
- Using and Creating Workspaces

#### **Working with Documents**

- Creating New Documents and Saving Files
- · Artboards and Navigation

#### **Basic Drawing**

- · Working with a Drawing
- · Line Tools
- Shape Tools
- Drawing for the Screen

#### **Modifying Your Drawing**

- Strokes
- Modify Paths
- Reflect and Rotate
- Pen and Pencil

#### **Working with Text**

- Text
- · Text Styles

#### **Managing Objects**

- · Align, Distribute, and Group
- Layers
- · Creative Cloud Libraries

#### **Formatting**

- · Colors and Swatches
- Gradients
- Patterns
- Masking

#### Brushes

- Calligraphic and Bristle Brushes
- Scatter and Art
- Pattern Brushes
- Blob Brush

#### EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



## Adobe Illustrator CC Level 2

Adobe Illustrator CC Level 2 covers advanced techniques and tools found within the program and will help you enhance and manage your drawings, as well as create more intricate drawings. The course begins with tools that will help you mange existing artwork. Then, you'll learn how to create special effects and graphs and work with data files inside of Illustrator. Lastly, you'll familiarize with the different ways you can share your artwork with others. By the end of this course, you'll be able to manipulate and reuse shapes using the Shape Builder, Symbols, and Recolor Artwork feature, create special effects such as drawings with perspective and 3D drawings, work with graphs and variable data, and output your files for print or the web.

#### User's prerequisites

You don't need any previous experience with Adobet® Illustrator to take this course.

#### **Course Outline**

#### **Create Complex Drawings**

- · Pathfinder and Shapebuilder
- Symbols
- · Recolor Artwork
- Live Paint
- Image Trace
- · Gradient Meshes

#### **Special Effects**

- · Perspective Drawings
- · Appearance Panel
- Effects
- 3D Effect
- · Graphic Styles

#### **Data and Automation**

- Graphs
- Scripts
- Variables
- Using Actions
- Create an Action

#### **Outputting Your File**

- Printing
- Exporting
- CSS

#### EDUCATION, GOVERNMENT AND BUSINESS ENTERPRISE LICENSING DISCOUNTS ARE AVAILABLE.



## Adobe InDesign CC Level 1

**Adobe InDesign CC Level 1** is the industry-standard for desktop publishing to create graphics-rich documents for print and electronic publishing. InDesign is part of the Adobe Creative Cloud, a suite of graphics programs that is strictly a subscription service. In this 15-hour introductory course, you will learn many time-saving techniques to create multi-page documents, which include both images and graphics. After taking this course, you will be able to identify the components that make up the InDesign workspace and draw shapes, create and flow text, format text, and place and manage images and graphics.

#### User's prerequisites

You don't need any previous experience with Adobet® Illustrator to take this course.

#### **Course Outline**

#### Introduction to InDesign Level 1

• Introduction

#### **Getting to Know the Workspace**

- · A Tour of InDesign
- · Work with the Application Bar
- · Discover the Control Panel
- · Explore Panels
- · Manage Rulers
- Using Tools
- · Enter Values in Fields

#### Moving Around in InDesign

- · Zoom and Scroll
- · Navigate Pages

#### **Getting Started**

- Create New Documents
- Open, Save and Close Documents
- Manage Document Pages
- · Work with Guides and Grids
- Create Default Settings
- Discover Undo/Revert and Crash Recovery

#### **Creating and Editing Objects**

- Manipulate Objects
- Adjust Appearance
- Create Shapes
- Work with Text Frames
- · Explore Images and Graphics
- Manage Links
- · Discover Align and Distribute
- Use Transform
- · Apply Color

#### Typography

- · Format Characters
- Format Paragraphs

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## Adobe Photoshop CC Level 1

As part of the Creative Cloud, **Adobe Photoshop** can be used to edit images one at a time or in large batches or create digital "paintings" that appear to be drawn by hand. In this 15-hour introductory course, you will familiarize with the Photoshop interface and many of the tools. You will learn about layers, selections, basic photo retouching, saving images, Adobe Camera Raw, and adding text to images.

#### User's prerequisites

You don't need any previous experience with Adobet® IPhotoshop to take this course.

#### **Course Outline**

#### Introduction

- · About Photoshop
- · Adobe Bridge
- Open Images

#### **Exploring the Interface**

- · Workspace Basics
- · Working with Panels

#### **Using the Tools**

- · Move, Zoom, Pan
- · The Options Bar
- · Options to Undo

#### **Image Basics**

- Image Size & Resolutions
- The Canvas
- Image Sources

#### **Introduction to Layers**

- · Layers Explained
- Layer Properties
- · Adjustment Layers

#### **Retouching Basics**

- · Retouching Tools
- · Content Aware Tools
- Final Output

#### **Making Selections**

- The Section Tools
- Working with Selections
- Select and Mask

#### **Photo Fixes**

- Quick Fixes
- Faces
- How to Blur
- Color Corrections

#### **Saving Images**

- · Saving for Print
- · Saving for Web
- Creative Cloud Libraries

#### Camera Raw

• Opening & Developing Raw Images

#### Creative Type

- Type Options
- The Character Panel
- Type of Text

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## Competitive Advantages



**eTraining by Training Experts:** Global eTraining is based upon 30 years of interactive asynchronous technical training experience in a college setting with thousands of successful students every year. No other providers of online training materials for Autodesk software have comparable training expertise. Global eTraining was created by Digital School, an Authorized Training Center and College licensed with the Province of Alberta, Canada. Canada, and specifically Alberta, continually rate at the top of the charts for education standards internationally.



**Seamless flow of multiple learning styles:** Global eTraining's expertise is demonstrated within the courseware by the seamless flow of multiple learning styles. It is a misconception that a checklist of audio + video + quiz = an equivalent training product. Global eTraining understands when to use the appropriate learning style for each learning objective.



**Global eTraining is two-way interactive training,** where the learner is involved, engaged and in control. One-way, passive training – such as video tutorials or online textbooks, has several limitations including engagement time, attention span, retention levels and ability to repeat a skill in a project scenario.



**Custom Learning Plans:** Global eTraining is able administer an assessment of users software skills, then generate a custom learning plan that links to the required eTraining content, so users can focus on the areas that require improvement and reduce their skill gaps. This ensures the most relevant training for each person and no time or money wasted on redundant training. With completion of a post-assessment, the skill improvement of each employee can be measured, which can be used for ROI calculations.



**Ease of administration and robust reporting:** Global eTraining uses a Learning Management System (LMS) with the optimum balance of robust reporting and ease of administration. Most online training material providers do not use a sophisticated LMS and therefore have little to no reporting functionality available. Those who do have an LMS with some reporting available, do not have the ability to scale reports from a high-level view to detailed information and are not able to allow company-specific views or reports through a custom administration portal, making reporting both tedious and restrictive. Global eTraining has scalable reports specifically available to each company and each department.



**Driving use and adoption through the Instructor Help Desk:** Global eTraining's objective is for users to engage with and learn from the courses. We actively track usage and adoption and work with the organization to communicate the offering, the benefits and the methodology. Our proactive Instructor Help Desk means that a learner is never stuck on their own, providing a social element of a real person available to help.



**Highest Value – Best product at the best price:** Enterprise license pricing, available for larger organizations, provides a low entry point for all-in access to the entire Course Library.



## Build Your Own Courseware



# **Easy as 1-2-3**

- - 1. Develop
- 2. Publish
- 3. Deliver

The Generator is an easy to use and effective interactive course building tool. Our system puts proven learning templates within easy reach of subject-matter experts with intuitive drag and drop functionality. Generate video, audio, text, images, interactivity, practical exercises and quizzes for engagement of all learning styles. You can even publish your course in multiple languages.





## About Global eTraining

### The Founders

Steve Wenzel
Board of Directors



For Steve, the challenge of designing and commercializing the world's most advanced technical training platform is all in a day's work. Steve works closely with the GeT global reseller network and applies his engineering background to build efficient processes throughout the company. He's continually looking ahead to design the next big thing for education technology because as he says "You simply can't rapid prototype a textbook...". Steve has a Masters of Biomedical Engineering and is a kite-surfer.

Susan Brattberg
Chief Customer Officer



Susan is a hands-on CCO. Right now, she is probably globe-trotting to a conference or to meet with a valued customer. For over a decade, Susan has been a trusted corporate training advisor to top executives at global corporations, prestigious universities, and government agencies. A Director for the Canada BIM council, Susan says, "BIM is 90% Sociology and 10% Technology". She has a B.A in Organizational Dynamics and an Executive MBA and is a yogi.

Holly Brattberg
Chief Financial Officer



Holly is in her comfort-zone when challenges are big and ideas are bigger. Named one of Canada's Top Young Entrepreneurs, Holly is a creative problem solver and deal maker. Her system: "for mass innovation, follow the scientific method." A ground-breaking thinker in education, Holly's instructional design expertise has been implemented by companies of all sizes, academic institutions and governments. Holly has a BSc. in Biomechanics and an Executive MBA and is a snowboarder.

# Jacqui Wenzel Chief Technical Officer



Jacqui brings insight into how students learn and retain information that's built the foundation for GeT 's success – "People learn better when they're having fun!" Applying her academic background to her daily work, her honours dissertation was on cognitive learning techniques and teaching methodologies. Jacqui is light years ahead of the industry, designing 21st century training. Her global team of project managers and subject matter experts run like clockwork. Jacqui has an Honours Science Degree in Educational Psychology and is a cross-fitter.

## The Company

Global eTraining is an award-winning Canadian-based provider of interactive online training solutions with over 25 years of experience in developing and delivering exceptional computer-based learning. We are a strategic training partner to some of the world's largest and most diverse multinational design, construction and software organizations, government bodies and educational institutions, and the global leader in designing training for the 21st Century.

### The History

Stemming from a family enterprise with deep roots in the business of education, Global eTraining was launched in 2010. The proud recipient of the 2014 CODIE Award for Best Corporate Training / Workforce Development Solution, GeT has quickly made its mark on the education technology industry.

Over the past 5 years, GeT has sold a million courses to learners in 139 countries.

Global eTraining is truly - globally training.

globaletraining.ca | getstarted@globaletraining.ca | 1-877-414-0200



















"Global eTraining collaborated with us to create a custom BIM Standards course that was commissioned by the Australia government and is being delivered to Architecture, Engineering and Construction firms throughout Australia. We are pleased with the customer service and expertise of the Global eTraining team and recommend their course development and delivery services."

Shane Morris - A2K Technologies, Australia

"I believe Global eTraining demonstrates a superior skill set in instructional design as well as multimedia design and development."

Reva Bond Ramsden - Academic Chair: Architectural Technologies, SAIT Polytechnic School of Construction

"One of the key benefits of the course structure is the modular nature which means it can readily be slipped in over a lunch hour or after work and the multi-device compatibility makes it easier to kill the odd 30 minutes with some productive training when on the move."

Mike Aldous - Mott MacDonald

"Do it, it's painless, worthwhile, you can only benefit. Learn something new or update existing skills, show your team you're interested in team and personal growth."

David Siddons - WorleyParsons

'I loved the layout and overall look of the pages and lessons. The colors were appealing and helped keep my interest as well as the simplistic theme. The different methods of teaching were great!'

Patrick Nye - Olympia High School

"We've really been pleased with the quality of the instruction. Our Virtual Construction department has really benefited from it and I've personally done the Revit and Civil 3D courses and been really impressed."

Drew Teal - Construction Modeling Manager, PCL Construction Management Inc., Canada

