Autodesk
Authorized Training Center

Rich Sales
Training Manager

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Web www.salesoft.co.nz

AutoCAD and AutoCAD LT Essentials

Course Description
Learn the features, commands, and techniques for creating, editing, and printing drawings with AutoCAD® and AutoCAD LT®. Using hands-on exercises, users explore how to create 2D production drawings.

Prerequisites
Users should have a working knowledge of the following:
- Drafting, design, or engineering principles.
- Microsoft® Windows® 7 or higher or Microsoft® Windows® XP.

Day 1

Taking the AutoCAD Tour
Navigating the Working Environment
Working with Files
Displaying Objects

Creating Basic Drawings
Inputting Data
Creating Basic Objects
Using Object Snaps
Using Polar Tracking and PolarSnap
Using Object Snap Tracking
Working with Units

Manipulating Objects
Selecting Objects in the Drawing
Changing an Object's Position
Creating New Objects from Existing Objects
Changing the Angle of an Object's Position
Creating a Mirror Image of Existing Objects
Creating Object Patterns
Changing an Object's Size

Day 2

Drawing Organization and Inquiry Command
Using Layers
Changing Object Properties
Matching Object Properties
Using the Properties Palette
Using Linetypes
Using Inquiry Commands

Altering Objects
Trimming and Extending Objects to Defined Boundaries
Creating Parallel and Offset Geometry
Joining Objects
Breaking an Object into Two Objects
Applying a Radius Corner to Two Objects
Creating an Angled Corner Between Two Objects
Changing Part of an Object's Shape

Working with Layouts
Using Layouts
Using Viewports

Annotation the Drawing
Annotation Scaling
Creating Multiline Text
Creating Single Line Text
Using Text Styles
Editing Text

Day 3

Dimensioning
Creating Dimensions
Using Dimension Styles
Editing Dimensions
Using Multileaders

Hatching Objects
Hatching Objects
Editing Hatch Objects

Working with Reusable Content
Using Blocks
Working with DesignCenter
Using Tool Palettes

Creating Additional Drawing Objects
Working with Polylines
Creating Splines
Creating Ellipses
Using Tables

Plotting Your Drawings
Using Page Setups
Plotting Drawings

Creating Drawing Templates
Using Drawing Templates

Cost	Times
$995 + GST per person	9:00am – 5:00pm Daily Manuals, Lunches and teas provided

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AutoCAD and AutoCAD LT Advanced

Course Description
This course is designed for the experienced AutoCAD® / AutoCAD LT® user requiring additional training in a flexible learning environment. This course incorporates the features, commands and techniques for becoming more productive when creating, annotating and printing drawings with AutoCAD. This course continues to build on the basic concepts of the AutoCAD Essentials course.
Depending on course attendee experience and requirements, emphasis may be given to any of the topics.

Prerequisites
It is recommended that students have a working knowledge of:

- The current or a previous release of AutoCAD.
- Creating and editing basic AutoCAD objects.
- Have preferably done the AutoCAD Essentials course.
- Microsoft® Windows® 7 or higher or Microsoft® Windows® XP

DAY 1	Day 2	Day 3
Drawing Objects Creating and Editing Multilines Creating Revision Clouds Creating Wipeout Objects Creating Boundaries Creating Regions **Manipulating Objects and Data** Selecting Object with Quick Select Purging Objects Working with Point Objects Dividing and Measuring Objects Using QuickCalc for Calculations **Template Drawing Creation** Creating Drawing Templates **Dimensioning and Annotation** Introduction to Annotation Scaling Controlling Annotation Scale Working with Text Using Multileaders Dimensioning Creating Center Marks Creating Ordinate Dimensions Creating Geometric Dimensions and Tolerances Working with Dimension Substyles and Overrides	**Reusable Content** Using DesignCenter Creating Custom Tool Palettes Organizing Tool Palettes Sharing Tool Palettes Using External References Managing External References Referencing Non-Native File Types **Blocks and Attributes** Working with Blocks Creating Attributes Editing Attributes **Working with Tables** Working with Table Styles Creating and Editing Tables Creating Advanced Tables Extracting Attributes to Tables Exporting and Importing Tables Creating Tables Linked to External Data	**Dynamic Blocks** Using Dynamic Blocks Adding Parameters to Dynamic Blocks Adding Actions to Dynamic Blocks Using Parameter Sets Creating Dynamic Blocks **Layer Management and Best Practices** Working with Layer Filters Using the Layer States Manager Using Layer Standards **Layouts and Views** Creating Layouts Modifying Layouts and Using Page Setups Creating Layout Viewports Working with Layout Viewports Controlling Object Visibility in Layout Viewports Working with Plotter Configuration Files Creating and Applying Plot Style Tables Publishing Drawings **Introduction to Sheet Sets** Creating Sheet Sets Working with Sheet Sets Setting Sheet Set Properties Using Fields in Sheet Sets Using Attributes in Sheet Sets Publishing, Transmitting, and Archiving Sheet Sets

Cost	Times
$995 + GST per person	9:00am – 5:00pm Daily Manuals, Lunches and teas provided

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AutoCAD 3D Drawing and Modeling

Course Description
Using hands-on exercises representing real-world, industry-specific design scenarios, users explore the fundamental concepts and workflows for creating 3D models using AutoCAD®. Users learn about 3D conceptualization using solid, surface, and mesh models, and the recommended practices for evolving those into composite models. The tools and concepts of free-form organic modeling are covered. This guide also teaches users how to present their designs while they are still being created, using visualization tools such as visual styles, model walk and fly-throughs, materials, and lighting. Users also learn how to output 3D models from AutoCAD to either paper or a distributable, electronic version.

Prerequisites
A working knowledge of the following:
- How to create and edit basic AutoCAD objects, and work with layouts in a recent version of AutoCAD.
- Microsoft® Windows® 7 or higher or Microsoft® Windows® XP

Please enquire regarding dates for this course. It will only be run when there are enough people.

Day 1

Introduction to 3D Modeling
Introduction to 3D
Creating Solid Primitives
Mesh Primitives
Working in 3D
Introduction to Free-Form Design

Modeling Workflow
Creating Models from 2D Profiles
Using Booleans on Solid Models
Creating Composite Models
Extracting Geometry from Solid Models
Getting Information from 3D Objects

Day 2

Editing Models
Adding Detail to Your Solid Models
Editing Solid Models
Manipulating the Model
Duplicating the Model
Converting 2D Objects
Basic Mesh Modeling

Sectioning a Model and Creating Drawings
Section a Solid Model and Generate 2D Geometry
Creating Drawings from 3D Models

Day 3

Visualization
Using Visual Styles
Using Lights
Using Materials
Using the Sun
Rendering
Navigating the Model
Leveraging Cameras and Views

Downstream Uses for Your Digital Prototype
3D Printing

Cost	Times
$995 + GST per person	9:00am - 5:00pm Manuals, Lunches and teas provided

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Autodesk Revit Architecture Essentials

Course Description
This course covers the basics of Autodesk Revit® Architecture. Users are introduced to the concepts of Building Information Modeling and the tools for parametric building design and documentation. Users begin with learning the fundamental features of Autodesk Revit Architecture and then progress through schematic design, construction documentation and design visualization.

Prerequisites
- Architectural design, drafting, or engineering experience is highly recommended. No previous CAD experience is necessary.
- A working knowledge of Microsoft® Windows® 7 or higher or Microsoft® Windows® XP

Day 1

Building Information Modeling
Building Information Modeling for Architectural Design

Revit Architecture Basics
Exploring the User Interface
Working with Revit Elements and Families
Starting a Project

Starting a Design
Creating and Modifying Levels
Creating and Modifying Grids

Day 2

The Basics of the Building Model
Creating a Basic Floor Plan
Adding and Modifying Walls
Working with Compound Walls
Using Editing Tools
Adding and Modifying Doors
Adding and Modifying Windows

Loading Additional Building Components
Working with Component Families

Viewing the Building Model
Managing Views
Controlling Object Visibility
Working with Section and Elevation Views
Creating and Modifying 3D Views

Day 3

Using Dimensions and Constraints
Working with Dimensions
Applying and Removing Constraints

Developing the Building Model
Creating and Modifying Floors
Working with Ceilings
Adding and Modifying Roofs
Creating Curtain Walls
Adding Stairs and Railings

Day 4

Detailing and Drafting
Creating Callout Views
Working with Text and Tags
Working with Detail Views
Working with Drafting Views

Construction Documentation
Creating and Modifying Schedules
Creating Rooms and Room Schedules
Creating Legends and Keynotes

Presenting the Building Model
Working with Drawing Sheets
Working with Titleblocks
Managing Revisions
Creating Renderings
Using Walkthroughs
Using Sun and Shadow Settings

Cost	Times
$1,495 + GST per person	9:00am - 5:00pm Manuals, Lunches and teas provided

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Autodesk Revit Architecture Families

Course Description
This course is designed for the existing Autodesk Revit® Architecture users who want to fully explore the Family Editor environment. It incorporates the features, commands and techniques for creating, editing and implementing custom building components.

Prerequisites
- Completed either the Autodesk Revit® Architecture, Autodesk Revit® Structure or Autodesk Revit® MEP Essentials course or have equivalent experience with either Autodesk Revit® platform product.
- It is recommended that you have a working knowledge of Microsoft® Windows® 7 or higher or Microsoft® Windows® XP.

Day 1

Introduction
About Families
The Family Editor
System Families
Standard Component (User) Families
In-Place Families
NZ Local Content

Use of Existing Families

Family Creation
Family Naming
Family Editor Basics

Creating Component Families
Basic Component Family Templates
Process for Creating Component Families
Quick Overview of Family Editor Commands
About Solids and Voids

Creating In-Place Families
About In-Place Families
About the In-Place Family Editor

Day 2

Family File Management
Project Browser Management

Modifying Families

Family Parameters

Use of Formulas in Families

Reference Planes and Lines

Using Nested Families
About Nested Families
About Linked Parameters

Using Profile Families

Using Detail Families

Cost	Times
$750 + GST per person	9:00am - 5:00pm Manuals, Lunches and teas provided

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Autodesk Revit Architecture Advanced

Course Description
This course covers a wide range of advanced topics in Autodesk Revit® Architecture, continuing to build on the concepts introduced in the Autodesk Revit® Architecture Essentials course. Users learn about site design, advanced rendering techniques, phasing and design options, and collaborating on a design.

Prerequisites
- Completed the Autodesk Revit® Architecture Essentials course or have equivalent experience using Autodesk Revit® Architecture. Architectural design, drafting, or engineering experience is highly recommended.
- It is recommended that you have a working knowledge of Microsoft® Windows® 7 or higher or Microsoft® Windows® XP

Day 1

Importing and Exporting Files
Importing and Using External Files
Exporting to External Files

Linking Files
Working with Linked Revit Architecture Projects
Monitoring and Coordinating Linked Projects

Conceptual Design
Working with Mass Shapes
Converting Mass Shapes to Building Components

Design and Analysis
Designing in Phases
Using Design Options
Checking and Fixing Interference Conditions
Using Area Plans and Color Schemes

Day 2

Revit Architecture Worksharing
Project Sharing Using Worksets
Managing Worksets and Multiple Users

Working with Professionals
Working on a Site Design
Working with a Structural Engineer

Advanced Rendering Techniques
Creating Realistic Presentations
Rendering Interior Views

Cost	Times
$750 + GST per person	9:00am - 5:00pm Manuals, Lunches and teas provided

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Autodesk Revit Structure Essentials

Course Description
This course covers the basics of Autodesk Revit® Structure. Users are introduced to the concepts of Building Information Modeling and the tools for parametric design, analysis and documentation. They learn the fundamental features of Autodesk Revit® Structure, learn to use the 3D parametric design tools for creating and analyzing a project, and finish with construction documentation and design visualization.

Prerequisites
- Structural engineering, drafting, or architectural design experience is highly recommended. No previous CAD experience is necessary.
- A working knowledge of Microsoft® Windows® 7 or higher or Microsoft® Windows® XP

Day 1

Building Information Modeling
Building Information Modeling for Structural Engineering

Revit Structure Basics
Exploring the User Interface
Working with Structural Elements and Families

Viewing the Structural Model
Working with Views
Controlling Object Visibility
Working with Elevation and Section Views
Working with 3D Views

Starting a New Project
Starting a Project
Adding and Modifying Levels
Creating and Modifying Grids

Day 2

Creating Structural Columns and Walls
Working with Structural Columns
Working with Structural Walls

Creating Frames
Adding Floor Framing
Working with Beams and Beam Systems
Working with Structural Steel Frames
Working with Concrete Beams

Creating Floors and Roofs
Adding Floors
Creating Roofs and Adding Structural Framing

Creating Foundations
Adding Foundations

Stairs and Ramps
Creating Stairs
Creating Ramps

Day 3

Creating Plan Annotations and Schedules
Adding Dimensions
Working with Text and Tags
Creating Legends
Working with Schedules

Creating Detailing
Working with Detail Views
Adding Concrete Reinforcement
Working with Drafting Views
Working with CAD Details

Creating Construction Documentation
Working with Sheets and Titleblocks
Printing Sheets
Exporting Content to CAD Formats

Cost	Times
$1395 + GST per person	9:00am - 5:00pm Manuals, Lunches and teas provided

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Autodesk Revit Structure Families

Course Description
This course is designed for the existing Autodesk Revit® Structure users who want to fully explore the Family Editor environment. It incorporates the features, commands and techniques for creating, editing and implementing custom building components.

Prerequisites
- Completed either the Autodesk Revit® Structure, Autodesk Revit® Architecture or Autodesk Revit® MEP Essentials course or have equivalent experience with either Autodesk Revit® platform product.
- It is recommended that you have a working knowledge of Microsoft® Windows® 7 or higher or Microsoft® Windows® XP

Day 1

Introduction
About Families
The Family Editor
System Families
Standard Component (User) Families
In-Place Families
NZ Local Content

Use of Existing Families

Family Creation
Family Naming
Family Editor Basics

Creating Component Families
Basic Component Family Templates
Process for Creating Component Families
Quick Overview of Family Editor Commands
About Solids and Voids

Creating In-Place Families
About In-Place Families
About the In-Place Family Editor

Day 2

Family File Management
Project Browser Management

Modifying Families

Family Parameters

Use of Formulas in Families

Reference Planes and Lines

Using Nested Families
About Nested Families
About Linked Parameters

Using Profile Families

Using Detail Families

Cost	Times
$750 + GST per person	9:00am - 5:00pm Manuals, Lunches and teas provided

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Autodesk Revit Structure Advanced

Course Description
This course covers a wide range of advanced topics in Autodesk Revit® Structure, continuing to build on the concepts introduced in the Autodesk Revit® Structure Essentials course. Users learn about detailing and detail components, rebar, families, analytical analysis, and collaborating on a design with other professionals.

Prerequisites
- Completed the Autodesk Revit® Structure Essentials course or have equivalent experience using Autodesk Revit® Structure. Structural engineering or architectural design experience is highly recommended.
- It is recommended that you have a working knowledge of Microsoft® Windows® 7 or higher or Microsoft® Windows® XP

Day 1

Working with Detail Components and Managing Details
Creating 2D Detail Components
Working with Detail Groups
Managing a Library of Typical Details

Working with Rebar
Adding 3D Rebar to Beams and Columns
Working with Reinforcements

Working with Families
Creating a Slab on Metal Deck
Creating Precast Hollow Core Slabs
Creating a Tapered Moment Frame
Creating a 3D Steel Gusset Plate
Adding Steel Stiffeners
Creating Stepped Footings

Creating Trusses
Modifying Bar Joist Families
Working with Trusses

Day 2

Exploring Analytical Tools
Working with Analytical Models
Adjusting an Analytical Model
Checking for Analytical Consistencies
Adding and Modifying Boundary Conditions
Analyzing and Updating the Model with ROBOT Millennium

Working with Clients and Consultants Using DWG Files
Importing and Exporting to AutoCAD
Importing and Exporting to AutoCAD Architecture

Working with Clients and Consultants Using Revit Architecture
Linking Revit Models
Coordinating and Monitoring Changes
Checking and Fixing Interference Conditions

Multi-User Worksharing
Creating and Using Worksets
Managing Worksets

Sharing Your Design Using DWF
Publishing Revit Structure Files to DWF
Working with DWF Markup Files

Cost	Times
$750 + GST per person	9:00am - 5:00pm Manuals, Lunches and teas provided

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Autodesk Revit MEP Essentials

Course Description
Learn about building information modeling and the tools for parametric MEP systems design and documentation using Autodesk Revit® MEP. Begin the four-day course by learning the fundamental features of Autodesk Revit® MEP, then progressing through schematic design, system analysis and construction documentation and finishing with design visualization.

Prerequisites
- MEP engineering design, drafting, or engineering experience is highly recommended. No previous CAD experience is necessary.
- A working knowledge of Microsoft® Windows® 7 or higher or Microsoft® Windows® XP

Day 1

Building Information Modeling
Building Information Modeling for MEP Engineering

Revit MEP Basics
Exploring the User Interface
Working with Revit Elements and Families

Viewing the Model
Managing Views
Controlling Object Visibility
Working with Section and
Elevation Views
Creating and Modifying 3D Views

Starting a New Project
Starting Up Projects
Linking Revit Models
Sharing Projects Using Worksets
Defining Discipline Settings
Importing and Editing DWG Details

Day 2

Defining Volumes
Creating Spaces
Creating Zones

Building Performance Analysis
Building Performance Analysis
Defining Heating and Cooling Loads
Calculating Heating and
Cooling Loads

HVAC Systems
Creating HVAC Systems
Generating HVAC System Layouts
Creating and Modifying Ductwork

Piping Systems
Creating System Piping

Day 3

Plumbing Systems
Creating Plumbing Systems

Fire Protection Systems
Creating Fire Protection Systems

Electrical Systems
Creating Electrical Circuits
Creating Wiring

Working with Architects and Engineers
Monitoring Changes in Linked Files
Checking and Fixing Interference Conditions

Day 4

Detailing and Drafting
Creating Callout Views
Working with Detail Views
Working with Drafting Views

Annotations and Schedules
Working with Text and Tags

Working with Dimensions
Creating Legends
Working with Schedules

Construction Documentation
Working with Titleblocks
Working with Sheets

The Family Editor (Optional)
Creating and Modifying Families

Cost	Dates
$1,495 + GST per person	9:00am - 5:00pm Manuals, Lunches and teas provided

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Autodesk Revit MEP Families

Course Description
This course is designed for the existing Autodesk Revit® MEP users who want to fully explore the Family Editor environment. It incorporates the features, commands and techniques for creating, editing and implementing custom building components.

Prerequisites
- Completed either the Autodesk Revit® MEP, Autodesk Revit® Architecture or Autodesk Revit® Structure Essentials course or have equivalent experience with either Autodesk Revit® platform product.
- It is recommended that you have a working knowledge of Microsoft® Windows® 7 or higher or Microsoft® Windows® XP

Day 1

Introduction
About Families
The Family Editor
System Families
Standard Component (User) Families
In-Place Families
NZ Local Content

Use of Existing Families

Family Creation
Family Naming
Family Editor Basics

Creating Component Families
Basic Component Family Templates
Process for Creating Component Families
Quick Overview of Family Editor Commands
About Solids and Voids

Creating In-Place Families
About In-Place Families
About the In-Place Family Editor

Day 2

Family File Management
Project Browser Management

Modifying Families

Family Parameters

Use of Formulas in Families

Reference Planes and Lines

Using Nested Families
About Nested Families
About Linked Parameters

Using Profile Families

Using Detail Families

Cost	Dates
$750 + GST per person	9:00am - 5:00pm
On request only – class numbers dependant	Manuals, Lunches and teas provided

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One on One Training

Description

If your training is urgent, or we don't have the numbers to hold a class, consider our One on One training. Salesoft's qualified and competent trainers can personalise your training with as many hours as you require. The training can be on any of the Autodesk products we sell and the training sessions can be created according to your company's needs.

One on One training includes training in Salesoft's Training suite or offsite, at your office or workshop. It can incorporate one person or a number of your staff. This is a seriously good option for staff training updates that don't take you out of your office, and is the perfect solution if you need training in specific areas. The attention and training will be all about you, our client. One on One training can ensure you receive exactly what you require, when you require it.

Please email Rich or call for enquiries, possible dates and costings.