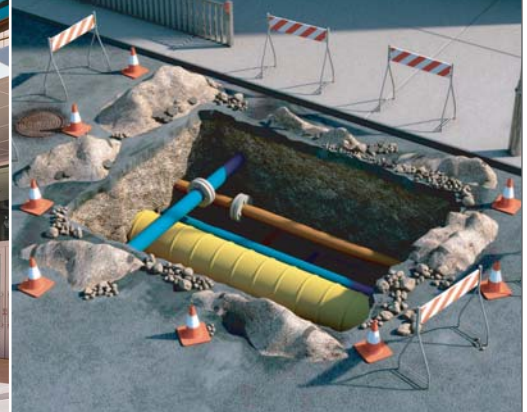




Building Engineering



Architectural Design



Civil and Infrastructure

CAD MicroSolutions Inc.

Software Solutions, Professional Services + Training Catalogue

Autodesk®

Authorized Value Added Reseller



CAD MicroSolutions Profile

416-213-0533 | 888-401-5885 | solutions@cadmicro.com | www.cadmico.com

Over the past 25 years, CAD MicroSolutions has been one of the most highly respected computer aided design solution providers in Ontario. To this day, we provide best-in-class software, training, consulting, and custom software development solutions to a wide range of design professionals across many industries (for a complete list see pg 3-4).

We have a dedicated and experienced technical team devoted exclusively to each industry we support. Our Professional Engineers (P. Eng), Application Technologists, Industry Specialists, Factory-Accredited Instructors, and Software Developers have combined experience of over 150 years in design automation, which makes us a natural choice as your CAD software provider.

Why Should You Choose Us?

- Specifically devoted to CAD/CAM/CAE software and services for 25 years.
- Over 85% of our business is driven from existing customers.
- Outstanding on-site and off-site training delivered by factory certified instructors.
- Small class sizes limited to 8 students per session.
- Exceptional overall student ratings for our courses.
- Reliable telephone, email, and webinar technical support with direct access to Autodesk.
- User Group Membership and access to complimentary, informative, special events.
- On-site custom troubleshooting.
- Project Mentoring delivered by Industry and Application Specialists.



CAD MicroSolutions Inc.

Design Automation Software Solutions 4

Professional Services 6

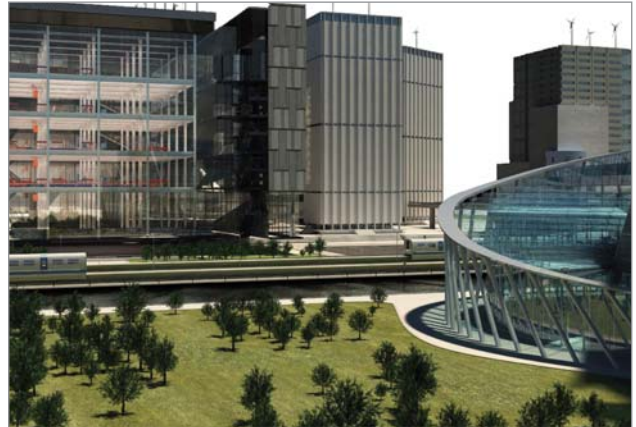
Training Courses

General Design and Drafting 7

Civil and Transportation Engineering 8

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Building Engineering 10



One source. Many solutions. CAD MicroSolutions is your one point of contact for best-in-class design software, professional services, and training.

Reduce design cycle time. Increase profitability.
Choose CAD MicroSolutions today.

Autodesk
Authorized Value Added Reseller

Autodesk
Premier Solutions Provider
Civil Solutions &
Mapping Specialist



Software Solutions

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General Design

Use the powerful, flexible features found in AutoCAD® design and documentation software, one of the world's leading 2D and 3D CAD tools. AutoCAD® is still considered a valuable and versatile design tool after 27 years in the marketplace.

SOFTWARE SOLUTIONS:

- AutoCAD®
- AutoCAD LT®
- DWG TrueView™



Architectural and Interior Design

Revit® BIM software is becoming the industry standard for building design because it enables designers to create more sustainable, accurate designs, all while collaborating freely.

SOFTWARE SOLUTIONS:

- Revit® Architecture
- AutoCAD® Revit® Architecture Suite
- AutoCAD® Architecture
- Autodesk® 3ds Max® Design

ADD-ON SOLUTIONS:

- Integrated Environmental Solutions Toolkits
- Autodesk® Ecotect™ Analysis



Mechanical, Electrical Plumbing + Piping Design

Autodesk® offers field-proven solutions built specifically for mechanical, electrical, and plumbing (MEP) engineers, designers, and drafters. These solutions offer revolutionary solutions for HVAC, Plumbing, Piping, Lighting and Power Design.

SOFTWARE SOLUTIONS:

- AutoCAD® Revit® MEP Suite
- AutoCAD® MEP
- AutoCAD® Raster Design

ADD-ON SOLUTIONS:

- Integrated Environmental Solutions Toolkits
- Autodesk® Ecotect™ Analysis



Structural Engineering

Autodesk® structural design solutions are specially built for BIM, providing the best structural engineering solutions from design to fabrication.

SOFTWARE SOLUTIONS:

- AutoCAD® Revit® Structure Suite
- Revit® Structure

ADD-ON SOLUTIONS:

- Autodesk® Robot Structural Analysis Professional



Civil Engineering

Autodesk® civil solutions intelligently connect design and documentation allowing users to design, analyze, and visualize projects better. These solutions allow you to get all the benefits of building information modeling (BIM) for civil engineering, while protecting your investment in software, trained personnel, and design data.

SOFTWARE SOLUTIONS:

- AutoCAD® Civil 3D®
- AutoCAD® Civil
- AutoCAD® Raster Design

ADD-ON SOLUTIONS:

- Section 3D



Transportation Engineering

Autodesk® transportation design solutions provide comprehensive 3D modeling tools for building infrastructure better, faster, and more affordably. These solutions help you maintain consistent and coordinated data to save time and reduce errors and rework. Communication is streamlined so transportation projects get completed faster-and budgets get spread further.

SOFTWARE SOLUTIONS:

- AutoCAD® Civil 3D®
- AutoCAD® Civil
- AutoCAD® Raster Design

ADD-ON SOLUTIONS:

- Section 3D



Geospatial

Autodesk® geospatial solutions allow users to directly access, edit, visualize, and analyze a broad variety of CAD and spatial data. Engineering and GIS professionals can work with the same data, and helps to integrate geospatial functions in a single environment for more efficient workflows.

SOFTWARE SOLUTIONS:

- AutoCAD® Map 3D
- Autodesk® Mapguide Enterprise
- AutoCAD® Raster Design



Project Collaboration

Autodesk® Navisworks® software solutions enable project design, engineering, construction, and manufacturing professionals to unite contributions into a single building or process plant model. Navisworks® allows you to perform: effective 3D coordination analysis, 4D planning simulation, and accurate photorealistic visualization with animations.

SOFTWARE SOLUTIONS:

- Autodesk® Navisworks® Manage
- Autodesk® Navisworks® Freedom
- Autodesk® Navisworks® Simulate
- Autodesk® Navisworks® Review

Switching to a new software platform is an involved process at every level of your organization. We offer design automation software implementation services delivered by experienced industry teams that will ensure successful adoption. Make the transition as smooth and pain-free as possible by using our implementation process.

Civil Engineering - AutoCAD® Civil 3D®

We understand that each new AutoCAD® Civil 3D® client is unique. Drawing on our years of experience and best practice methodologies, we tailor an implementation plan designed to suit your specific business requirements.

STEP 1:
PLANNING

- The goal of this phase is to unite your work environment with our knowledge of Civil 3D®. Some of the topics we will discuss include:
- Business goals and associated requirements for solutions
 - Identification of project team member(s) and their roles
 - Staff training requirements and methodologies
 - Identifying and building a schedule for a suitable Pilot Project

STEP 2:
EXECUTION

- Once a plan is in place we will execute action items such as:
- CAD Management Consulting
 - Template or styles development
 - Staff product training
 - Pilot Project mentoring and online support

STEP 3:
REVIEW

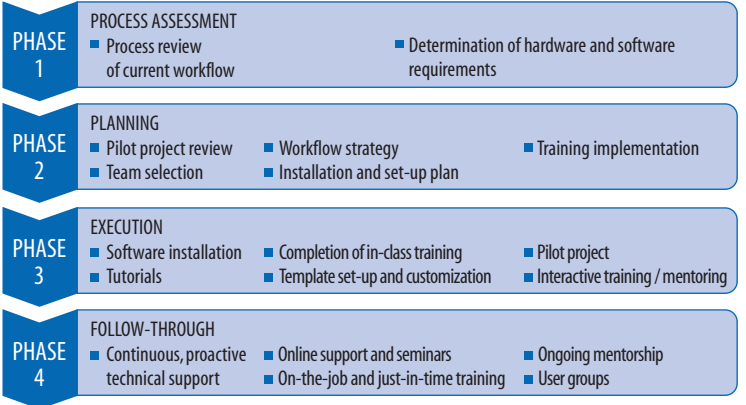
- Once the action items found in the plan have been completed, a full review is performed to measure success. Next steps may include:
- Return on Investment (ROI) Report
 - Wins and losses
 - Process Consulting to maximize ROI for all staff
 - Company-wide roll-out planning

Architectural Design and Building Engineering - Revit®

Our Architectural and Building Engineering Applications Team has combined experience of over 20 years in the Building Design Industry and consist of:

- Leadership in Energy and Environmental Design Accredited Professionals (LEED AP)
- Architects and Industry Specialists
- Revit® Application Experts
- Factory-Accredited Revit® Instructors

Our professionals have developed a proven four-phase implementation process that ensures success transitioning to the Revit environment.



General Design and Drafting Training

416-213-0533 | 888-401-5885 | solutions@cadmicro.com | www.cadmico.com

| AutoCAD® 2010 Fundamentals | AutoCAD® 2010 Advanced | AutoCAD® 2010 Update for 2008 Users | AutoCAD® 2010 Update for 2009 Users |
|---|--|---|-------------------------------------|
| <p>Students will cover essential core topics in AutoCAD® including how to use basic tools that will enable them to create and edit a simple drawing. More advanced tools are also covered.</p> | <p>Learn how to be more proficient with AutoCAD®, as well as how to use more advanced techniques</p> | <p>Introduces AutoCAD® 2010's new features.</p> | |
| <p><i>Familiarity with Windows®. Experience with 2D drafting and design concepts.</i></p> | | <p><i>AutoCAD® Fundamentals or equivalent. This course is also ideal upgrade training.</i></p> | |
| <p>OVERVIEW:</p> <ul style="list-style-type: none"> ■ AutoCAD® workspace and user interface ■ Basic drawing, editing, and viewing tools ■ Organizing drawing objects on layers ■ Inserting reusable blocks ■ Preparing layouts for plotting ■ Adding text, hatching, and dimensions ■ Advanced editing and construction techniques ■ Creating local and global blocks ■ Advanced Layouts ■ Setting up layers, styles, and templates ■ Publishing Drawing Sets | | <p>OVERVIEW:</p> <ul style="list-style-type: none"> ■ The Application Menu ■ Ribbon updates ■ Quick Access Toolbar enhancements ■ Enhanced Layer Properties Manager ■ Quick View Layouts and Quick View Drawings ■ Annotation Scales ■ Hatching updates ■ Measuring tools ■ Adding constraints to dynamic blocks ■ Exporting to PDF files ■ Contextual Ribbon tabs ■ User Interface Customization updates ■ Action Recorder updates | |
| <p style="text-align: right;">3 DAYS</p> | | <p style="text-align: right;">1 DAY</p> | |

Objectives

Prerequisites

Civil and Transportation Engineering Training

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Objectives

Prerequisites

| AutoCAD® Civil 3D® 2010 Fundamentals | AutoCAD® Civil 3D® 2010 Survey Fundamentals | AutoCAD® Civil 3D® 2010 Designing Intersections and Cul-de-Sacs | AutoCAD® Map 3D® 2010 Essentials |
|--|---|--|---|
| <p>Students will learn how to take advantage of AutoCAD Civil 3D's interactive, dynamic design functionality. All basic features and tools will be covered.</p> | <p>Surveyors will learn how to use the AutoCAD Civil 3D functionality that they require in the field.</p> | <p>Students will learn how to use AutoCAD Civil 3D for intersection and cul-de-sac design with greater accuracy and speed.</p> | <p>Learn about the geospatial features and functions of AutoCAD® Map 3D 2010, including how to create, manage, and analyze geospatial data</p> |
| <p><i>Experience with AutoCAD® or AutoCAD® Land Desktop .</i></p> | <p><i>Prior experience with AutoCAD® and a basic understanding of the Surveying profession.</i></p> | <p><i>Completion of Civil 3D® Fundamentals or equivalent civil engineering experience.</i></p> | <p><i>Prior experience with AutoCAD® and a basic understanding of the geospatial data.</i></p> |
| <p>OVERVIEW:</p> <ul style="list-style-type: none"> ■ Importing data through AutoCAD LandXML and from an AutoCAD Land Desktop Project ■ Points and Point Groups ■ Creating, editing, and analyzing surfaces ■ Creating parcels and parcel tables ■ Creating sites, creating and editing alignments, creating profiles and cross-sections ■ Creating assemblies, corridors and cross-sections and calculating corridor volumes ■ Creating complex grading solutions ■ Creating pipe networks <p style="text-align: right;">3 DAYS</p> | <p>OVERVIEW:</p> <ul style="list-style-type: none"> ■ AutoCAD Civil 3D Interface ■ Points Overview and Styles ■ Importing Points and Coordinating Transforms ■ Creating Points and Drafting ■ Point Groups, Grips, and Reports ■ Point Security and Editing ■ Introduction to Data Collection in the Field ■ Civil 3D Survey and Automated Linework ■ Survey Networks ■ Survey Least Squares analysis ■ Traverses and their Adjustment ■ Surface Overview ■ Sharing Data and Google Earth <p style="text-align: right;">3 DAYS</p> | <p>OVERVIEW:</p> <ul style="list-style-type: none"> ■ Creating Cul-de-Sacs ■ Creating Knuckles ■ Creating an Intersection: Peer Roads ■ Creating an Intersection ■ Working with Architects and Engineers ■ Modeling Main Roads ■ Designing Cul-de-Sac Bulbs ■ Plotting Cul-de-Sacs ■ Modeling Knuckles ■ Revising Knuckles <p style="text-align: right;">1 DAY</p> | <p>OVERVIEW:</p> <ul style="list-style-type: none"> ■ Establishing a Geospatial Environment ■ Stylizing Features ■ Editing Features ■ Managing Features ■ Workflows ■ Job Processes ■ Updating Parcels ■ Creating Maps ■ Sharing Geospatial Data with a Third Party ■ Using Bulk Copy ■ Using Buffers <p style="text-align: right;">2 DAYS</p> |

Architectural Applications Training

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| Revit® Architecture 2010 Fundamentals | Revit Architecture® 2010 Intermediate | Revit Architecture® 2010 Advanced | Revit Architecture® 2010 Content Creation |
|---|---|---|---|
| <p>Learn how to create full 3D architectural project models and set them up in working drawings. This class focuses on basic tools most users need to use.</p> | <p>Students will learn how to use more advanced collaboration, design development, and construction documentation tools to increase productivity.</p> | <p>Students will learn about Preliminary Design (massing studies, space planning, visualization, and rendering) and BIM Management (custom families).</p> | <p>Learn how to use families in projects. Concepts of parametric design, family creation, and best practices are also covered. Hands-on tutorials provided.</p> |
| <p><i>Familiarity with Windows®. Revit® Architecture Help Getting Started Tutorial.</i></p> | | <p><i>Revit® Architecture Fundamentals or equivalent experience.</i></p> | |
| <p><i>Revit® Architecture Intermediate or equivalent experience.</i></p> | | <p><i>Revit® Architecture Fundamentals and Revit® Architecture Intermediate or equivalent project experience.</i></p> | |
| <p>OVERVIEW:</p> <ul style="list-style-type: none"> ■ Building Information Management (BIM) ■ Workspace and interface ■ Adding walls to a massing study ■ Creating presentation sheets ■ Basic drawing and editing tools ■ Levels and Grids as datum elements ■ Creating walls, windows, and doors ■ Adding floors and roofs ■ Standard and custom stairs ■ Detail Reflected Ceiling Plans ■ Setting up sheets for plotting with text, dimensions, details, tags, and schedules | <p>OVERVIEW:</p> <ul style="list-style-type: none"> ■ Setting up project phasing ■ Using groups ■ Importing and exporting files ■ Creating multiple-sploe floors, roofs and slabs ■ Creating curtain walls ■ Site design and structural design tools ■ Creating schedules, including material takeoff schedules ■ Adding keynotes and legends ■ Working with advanced viewing tools | <p>OVERVIEW:</p> <ul style="list-style-type: none"> ■ Creating In-Place Conceptual Mass elements and Conceptual Mass families ■ Building elements from massing studies ■ Areas for space planning and analysis ■ Perspectives, walkthroughs, and solar studies ■ Rendering and lighting concepts ■ Creating custom templates with annotation style, titleblocks, and custom element styles ■ Creating custom wall, roof, and floor types ■ Setting up family files ■ Creating family geometry ■ Creating family types and specific families including custom doors and windows | <p>OVERVIEW:</p> <ul style="list-style-type: none"> ■ System Families Overview ■ Creating a Titleblock Family ■ Creating Detail Component Families ■ Creating Planting Families ■ Creating a Basic Window Family ■ Creating a Door Family ■ Creating a Baluster Family ■ Using Reference Lines in Families ■ Creating a Complex Window Family ■ Creating Shared Families ■ Formulas and Conditional Statements ■ Creating a Complex Window Family ■ Detail Component Families |
| <p style="text-align: right;">3 DAYS</p> | <p style="text-align: right;">3 DAYS</p> | <p style="text-align: right;">2 DAYS</p> | <p style="text-align: right;">2 DAYS</p> |

Objectives

Prerequisites

Building Engineering Training

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Revit® Structure 2010 Fundamentals

Revit® MEP 2010 Mechanical Essentials

Revit® MEP 2010 Electrical and Piping Essentials

AutoCAD® MEP 2010 Essentials

Objectives

Learn to use the software's user interface and basic structural components that make Revit® a powerful, flexible modeling tool. Learn to create, document, and print your parametric model.

Students will learn about the basic features of Revit® MEP, then progress through schematic design, system analysis and construction documentation, and design visualization. Real-world engineering examples are used.

Learn to determine energy requirements, add HVAC, electrical and plumbing systems. Everything from schematic design, to project-construction documentation phases are also covered.

Prerequisites

Familiarity with Windows®. Experience with structural engineering concepts.

Familiarity with Windows®. Experience with MEP engineering concepts.

Thorough knowledge of AutoCAD® and MEP design experience

OVERVIEW:

- Introduction to Revit® Structure
- Views
- Revit Structure Design Tools
- Starting a Structural Project using overlays and foundations
- Framing Systems
- Elevator Shafts, Stairs, and Ramps
- Annotation, Detailing, and Scheduling
- Sheets and Printing

3 DAYS

OVERVIEW:

- Building Information Modeling for MEP
- Exploring the User Interface
- Working with Revit® Elements and Families
- Viewing the Model
- Starting a New Project
- Defining Volumes
- Building Performance Analysis
- HVAC Systems
- Generating HVAC System Layouts
- Detailing and Drafting
- Creating Callout Views
- Annotations and Schedules
- Construction Documentation

3 DAYS

OVERVIEW:

- Piping Systems
- Plumbing Systems
- Fire Protection Systems
- Creating Electrical Circuits and Wiring
- Working with Architects and Engineers
- Monitoring Changes in Linked Files
- Checking and Fixing Interference Conditions
- Detailing and Drafting
- Creating Callout Views
- Annotations and Schedules
- Construction Documentation

2 DAYS

OVERVIEW:

- Loading Base Drawings for a Project
- Drawing a Schematic Diagram
- Generating Spaces
- Working with Space Engineering Data
- Adding Ceiling Grids
- Modeling an HVAC System
- Analyzing Your HVAC System
- Modeling an Electrical System
- Analyzing Your Electrical System
- Generating Electrical Documentation
- Outputting Construction Documents

5 DAYS

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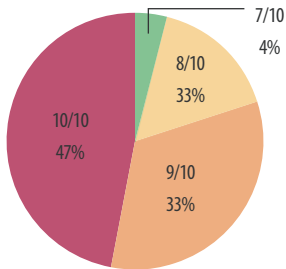
Training Your People = Smart Investment.

Productivity and profitability are strongly linked to the performance of your staff. This is why training is so critical to your organization. Training provides practice and applicable knowledge that empowers people to perform at a higher level. CAD MicroSolutions has an experienced and highly effective team of instructors who will ensure that our training programs deliver the quick and dramatic results you desire. Invest in training and learn why it has a significant and rapid ROI.

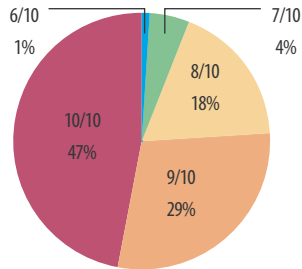
Why should you train with us?

- We train an average of 700 students from 80 different companies per year
- Students consistently give us high marks on their satisfaction with our courses
- We can deliver on-site training with complete access to our mobile laptop labs
- Custom courses can be tailored to meet your design team's specific training needs
- Low student-to-instructor ratio with classes limited to a maximum of 8 students

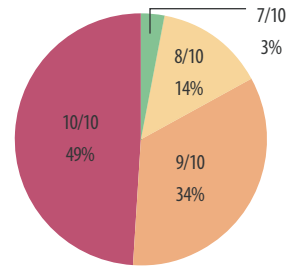
We asked our students to rate us on the following categories. The results speak for themselves.



The Instructor presented the material clearly.
Average Student Rating: 9/10



I would recommend this course to others.
Average Student Rating: 9/10



The Instructor covered the objectives.
Average Student Rating: 9/10

Autodesk®

Authorized Training Center

Student Comments

Revit® Architecture Fundamentals

"The course met all my expectations. The Instructor managed to supplement the training manual with many useful tips and demonstrations. It totally changed my perspective on Revit®. I am really interested in using this software now."

Razvan Ghilic Micu
Kuwabara Payne McKenna Blumberg Architects

Revit® Architecture Custom Course

"A very comprehensive course, well structured and thorough."

Rich Hlava, Stantec Architecture

AutoCAD® Civil 3D® Fundamentals

"Great course...Powerful software...Can hardly wait to use it more!"

Sonya Wrigglesworth, Aquafor Beech

AutoCAD® Custom Course

"Course content and examples provided exactly what I was looking for. Really appreciated other features covered. They were useful for all users."

Dave Osterlirck, Horizon Utilities

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