CADLearning®

Build Your Own
Roles and Goals

CADLearning®

Contents

Just Four Steps

What is more important to you and your organization: the completion of standardized training courses based upon the number of videos watched, or the mastery of skills based on job competencies? Vegas odds say you're picking the second.

Training Completion ≠ Performance Improvement

Completing a training program doesn't mean that somebody can effectively transfer that theoretical knowledge to on-the-job performance. Achieving an 80% means that 20% of the necessary knowledge and skills were not learned, and that missing 20% may be critical to the job.

So, how do we break the traditional training model and stop checking course completion boxes?

Most organizations have a unique set of workflows that lead to specific outcomes. No one person is responsible for all deliverables of a project, but each role has unique competencies that define it and contribute to the team. Thus, creating custom role and goal-based paths will ensure that the exact knowledge and skills required by your organization are mastered.

Creating a Custom Roles-Based Workflow

1. Identify job roles
2. Map those roles to goals
3. Match competencies that are actionable and measurable for each desired outcome
4. Add learning objectives

1. Roles

The key to truly effective learning paths is to create a hierarchical structure of the knowledge and skills in your organization. To do so, you must first start at the highest level of the defined job role and responsibilities. CADLearning Roles can be assigned at an organization level or chosen by an individual, and are made up of one or more goals, which include a series of related medallions and badges.

2. Goals

Look at each role, job description, and defined set of responsibilities. Do these descriptions align with the tasks performed on project deliverables? If not, what changes and adjustments need to be made to the requirements? Within the roles of every job, those requirements define a series of goals. Ask yourself the question, "The person in this role needs to be able to do what?" For example, the job responsibility might state, "working with BIM," but the actual goal is to generate a facility's energy analysis from a model.

3. Medallions

Once you have determined the goals essential to a role, you can drill into the desired outcomes. What are the high-level objectives that need to be accomplished in order to achieve that goal?

4. Badges

Badges are where the tactical aspects of the workflow are defined. In all cases, the candidate must complete a task that is actionable and measurable. Objectives for each badge need to complete the following statement: "At the successful completion of this badge, the user will be able to…" do what?

An actionable and measurable outcome is met when a task or skill is performed within a software program. This task or skill should be directly related to a workflow.

Only after you identify roles and goals, then outcomes that match medallions and actionable learning objectives that match badges, can you start pairing lessons, content, and assessments to each badge.

Build Your Learning Roadmap

Now that you know the high-level theory behind CADLearning Roles and Goals, we can apply it to create your own learning roadmap. This workbook will help you get started:

Identify the Role

Working backward is the key to building more effective learning paths. Start by listing out the jobs in your organization. For example, roles could include a Detailer, HVAC Installer, Pipe Fitter, or Mechanical Engineer.

Now list yours:

Pick the role you are most familiar with to get started. For our example, we will pick Mechanical Engineer.

Which do you pick? _____.

Set Some Goals

Next, identify what you want your users to achieve. What goals can they reach toward within that role? For our Mechanical Engineer, they could be workflow-specific, such as Energy Analysis Specialist, Plumbing Design Specialist, or Mechanical Design Specialist. Goals could also be program-specific, such as Revit Core.

Now list the goals that you want to achieve for the role you chose above:

Again, pick a goal you are most familiar with to work on. For our example, we will pick Energy Analysis Specialist.

Which do you pick? _____.

Once you have gone through the process with one goal you know well, the others will be much easier!

Assign Medallions

Now think about the core skills that each employee needs to achieve that outcome. Each of these is a competency. In order to be able to perform an energy analysis using Revit, our Mechanical Engineer needs to master Model Preparation, Energy Analysis Settings, and Energy Simulations.

List the competencies for the outcome you chose above:

Each of these competencies will be a medallion.

Now—you guessed it—you should choose a high-level outcome to work on. We will pick Model Preparation.

Which do you pick? _____.

Provide Badges

This is where it all starts to come together! Once your roles and goals are mapped out, determine which learning objectives are required for each competency.

For example, in order for our Mechanical Engineer to master the Model Preparation medallion, we must think about the specific tasks necessary to prepare the Revit model to undergo an energy analysis. These become the learning objectives.

At the successful completion of this badge, a Mechanical Engineer performing an energy analysis in Revit will be able to prepare a Revit model by:

1. adjusting model properties, including wall, floor, roof, window, and door properties to ensure their type and materials reflect the built environment.
2. working with rooms and spaces to ensure calculations for volume and air flow are correct for determining heating and cooling loads.

These two objectives now become two badges that we can assign lessons to. We can name them, "Adjusting Model Properties" and "Working with Rooms and Spaces".

List the learning objectives for the outcome you chose above:

Now name them and then pick one to map CADLearning lessons to. Which do you pick? _____.

Identify Lessons

Once you have identified your goals, medallions, and badges for each role, it is time to match up lessons to those badges. For example, the Adjusting Model Properties badge will be the first badge our Mechanical Engineer will work toward achieving. It will include these CADLearning lessons:

- Understanding Wall System Families and Types

- Understanding Wall Type Properties

- Understanding Floor Type Properties

- Understanding Roof Type Properties

- Modifying Door and Window Properties

What lessons will your first badge include?

Once everything is mapped out, the hierarchy of your learning path will look like this:
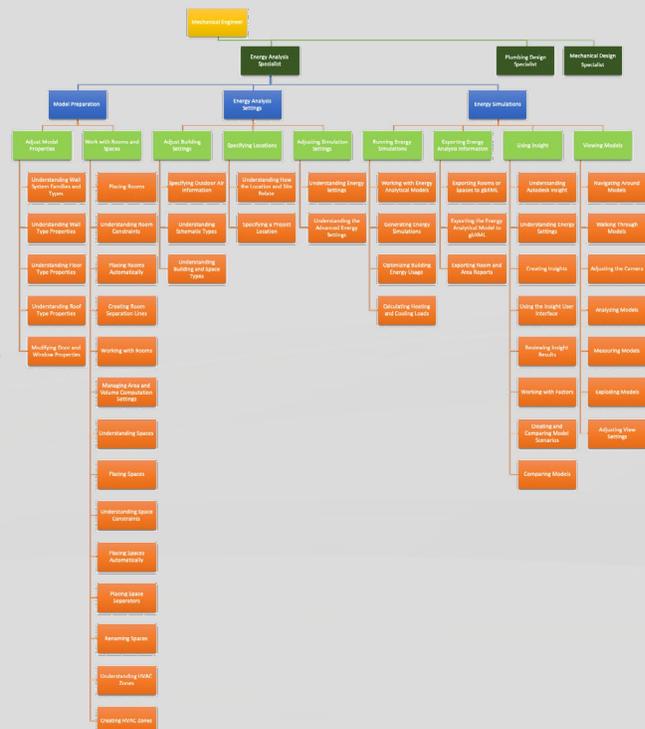
Click the image to download a copy of the map.

In your spreadsheet, the mechanical engineer role will look like this:

	A	B	C	D	E	F
1			Mechanical Engineer			
		Energy Analysis Specialist			Goal Name	
	Medallion Name	Badge Name	Lesson Title	Medallion Name	Badge Name	Lesson Title
4	Model Preparation	Adjust model properties	Understanding Wall System Families and Types			
5	Model Preparation	Adjust model properties	Understanding Wall Type Properties			
6	Model Preparation	Adjust model properties	Understanding Floor Type Properties			
7	Model Preparation	Adjust model properties	Understanding Roof Type Properties			
8	Model Preparation	Adjust model properties	Modifying Door and Window Properties			
9	Model Preparation	Work with rooms and spaces	Placing Rooms			
10	Model Preparation	Work with rooms and spaces	Understanding Room Constraints			
11	Model Preparation	Work with rooms and spaces	Placing Rooms Automatically			
12	Model Preparation	Work with rooms and spaces	Creating Room Separation Lines			
13	Model Preparation	Work with rooms and spaces	Working with Rooms			
14	Model Preparation	Work with rooms and spaces	Managing Area and Volume Computation Settings			
15	Model Preparation	Work with rooms and spaces	Understanding Spaces			
16	Model Preparation	Work with rooms and spaces	Placing Spaces			
17	Model Preparation	Work with rooms and spaces	Understanding Space Constraints			
18	Model Preparation	Work with rooms and spaces	Placing Spaces Automatically			
19	Model Preparation	Work with rooms and spaces	Placing Space Separators			
20	Model Preparation	Work with rooms and spaces	Renaming Spaces			
21	Model Preparation	Work with rooms and spaces	Understanding HVAC Zones			
22	Model Preparation	Work with rooms and spaces	Creating HVAC Zones			
23	Energy Analysis Settings	Adjusting building settings	Specifying Outdoor Air Information			
24	Energy Analysis Settings	Adjusting building settings	Understanding Schematic Types			
25	Energy Analysis Settings	Adjusting building settings	Understanding Building and Space Types			
26	Energy Analysis Settings	Specifying location	Understanding How the Location and Site Relate			
27	Energy Analysis Settings	Specifying location	Specifying a Project Location			
28	Energy Analysis Settings	Adjusting simulation settings	Understanding Energy Settings			
29	Energy Analysis Settings	Adjusting simulation settings	Understanding the Advanced Energy Settings			
30	Energy Simulations	Running energy simulations	Working with Energy Analytical Models			
31	Energy Simulations	Running energy simulations	Generating Energy Simulations			
32	Energy Simulations	Running energy simulations	Optimizing Building Energy Usage			
33	Energy Simulations	Running energy simulations	Calculating Heating and Cooling Loads			
34	Energy Simulations	Exporting energy analysis information	Exporting Rooms or Spaces to gbXML			
35	Energy Simulations	Exporting energy analysis information	Exporting the Energy Analytical Model to gbXML			
36	Energy Simulations	Exporting energy analysis information	Exporting Room and Area Reports			
37	Energy Simulations	Using Insight	Understanding Autodesk Insight			
38	Energy Simulations	Using Insight	Understanding Energy Settings			
39	Energy Simulations	Using Insight	Creating Insights			
40	Energy Simulations	Using Insight	Using the Insight User Interface			
41	Energy Simulations	Using Insight	Reviewing Insight Results			
42	Energy Simulations	Using Insight	Working with Factors			
43	Energy Simulations	Using Insight	Creating and Comparing Model Scenarios			
44	Energy Simulations	Using Insight	Comparing Models			
45	Energy Simulations	Viewing models	Navigating Around Models			
46	Energy Simulations	Viewing models	Walking Through Models			
47	Energy Simulations	Viewing models	Adjusting the Camera			

Click the image to download a copy of the spreadsheet.

Tips for Identifying CADLearning Lessons

CADLearning offers the most comprehensive library of Autodesk learning content in the world, which means that you can typically find most of the content you need to match your Roles and Goals learning objectives in the Library. Try these five tips to help you find the perfect lessons:

1. Start by finding the correct product. Open the Library drop-down and select the product title that matches the software program you are working with.

2. Pick the correct year. From the drop-down next to the product name, you can select a product version. In some cases, a second drop-down will open that includes additional courses for that product and version.

3. Take advantage of the filter bar. Located above the product library topics, you can quickly filter lessons by keyword, command, or feature.

4. Find inspiration from our topics. Often, you will find that the learning objectives in your badges will align neatly with our existing topics. Use our topics as guides when adding lessons to your badges.

5. Leverage our scrolling narration. Open a lesson, and you will see scrolling narration underneath the video controls. Scan through the lesson content to make sure that the lesson is a good fit. You can even click directly on the narration, and the video will play at that point in the lesson.

Then, simply repeat the process until you have lessons assigned to each badge, badges assigned to medallions, and medallions assigned to goals that match roles.

Get Started

Ready to create your learning roadmap?

Start by watching this quick video.

Then, download the Role Creation Spreadsheet, which includes a blank sheet so you can start building your custom path.

If you have any questions, please contact us at customersuccess@cadlearning.com for more information.