

## Learn Forma Build in 90 minutes

### Instructor guide

Course duration: ~5 hours, depending on lecture time

Recommended student level: Beginner students in construction management or related fields

Product: Autodesk Forma for Construction

This instructor guide is a comprehensive tool for facilitating this course in the classroom. Prepare to teach the course by thoroughly reviewing this document, as well as all related course materials and resources. You may also share this document with your students to guide them in their assignments. It's always recommended that you work through the course yourself in preparation for each module.

### Learning objectives:

After completing this course, you will be able to:

- Access and navigate project information in Forma Data Management.
- Work with drawings, models, and specifications in Forma Build.
- Create and track Issues for project coordination.
- Process RFIs, submittals, meetings, correspondence, assets, and forms.
- Set up and manage project budgets in Cost Management.
- Monitor payment applications and forecast project costs.

The overall course contains the following resources:

- Three video modules covering all the topics in the course.
- Dataset files for use when following the video modules.
- Quiz questions with timecodes for remedial knowledge check.
- Exam-style final test questions at the conclusion of the course.
- Three practice exercises with exercise files and solutions.
- One challenge assignment with recommended assessment criteria.
- Lecture slides that introduce topics and themes covered in the course.

**Structure of the course:**

The course is split into 3 modules and is designed to cover how to coordinate project communication, and support cost control workflows within a digital construction environment using Autodesk Forma for Construction Build.

**Videos:**

Each video begins with a list of learning objectives covered in the video. The dataset mentioned throughout all the videos are available for students to follow along or practice after the video.

**Dataset:**

This course has one dataset folder including Revit models in imperial and metric units and some additional files to be used throughout the course and course series. This course is part of a series of four courses, (1) Learn Data Management, (2) Learn Build, (3) Learn Design Collaboration and Model Coordination, and (4) Learn Preconstruction (Takeoff and Estimate). The dataset folder is the same for all four courses. It is recommended to offer the Learn Data Management course first since it teaches students how to upload the dataset folder to Autodesk Forma Data Management. If you decide not to offer the Learn Data Management course first, you'll need to upload the dataset folder yourself to Forma Data Management as discussed in the Instructor setup guide video.

**Practice exercises:**

There are 3 practice exercises included, each exploring a different set of topics. The practice exercises are designed to give students an opportunity to test their knowledge and apply what they have learned. Each practice exercise is accompanied by an answer key. Students should follow along the videos in the module before attempting the practice exercise for that module.

**Challenge exercise:**

One challenge assignment is included, focusing on a set of topics covered in the course. Students are presented with a challenge in an applicable real-world situation, and they apply their skills and the techniques learned to solve the challenge. A grading rubric is provided for the instructor, giving guidelines on assessment criteria. You can also encourage students to work in small groups, first discussing the desired outputs and working collectively to derive the best process and execution in the software.

**Video quiz questions:**

Quiz questions are included with each video of the course and the timecodes are included so that students can review the related sections in the video for questions they have answered incorrectly.

**Final test questions:**

A cumulative set of exam-style questions are included at the conclusion of the course for students to measure what they have learned against realistic multiple-choice questions.

**Lecture slides:**

Lecture slides are offered to help facilitate in-class discussion.

**Using the course in the classroom or self-paced**

This course can be implemented as an independent, self-paced project, or can be completed in the classroom in a team setting. A couple of options are outline below:

**Option 1: Self-paced**

Each student will log into Autodesk.com/learn using their Autodesk Account credentials and follow along with the project instruction. (Alternatively, you may choose to assign the material through your LMS). Students can work through the projects on their own by following the project steps and challenge instructions, and by exploring any supporting assets. This is a great way to allow students to move through the learning materials at their own pace and explore additional learning opportunities or increase shop time. The self-paced option can also be used for out of classroom or remote assignments. A certificate of completion is awarded once the course is completed.

**Option 2: Instructor-led**

In this option, instructors will log into Autodesk.com/learn using their Autodesk Account credentials and download the learning materials. Instructors can then guide the students through each project, using the accompanying lecture slides for instruction and step-by-step guides and practice exercises as handouts. This option allows for guided, step-by-step classroom engagement. This approach works well in a more traditional classroom setting and will allow instructors to easily keep students on the same pace. The challenge exercise can be used as a learning opportunity for students who complete their work early or are looking for additional hands-on opportunities.

## Course contents

Each module is listed below along with suggested time allocations for instruction. Review the video tutorials for the detailed instruction in each module.

### Module 1: Access and navigate project information in Forma for Construction

#### Access sheets and models from Forma Data Management

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Access project files from Forma Data Management.
- Open and retrieve the correct drawings.
- Navigate sheets and models in Forma Build.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

#### Datasets:

*All the files in the dataset folder will be uploaded to Files in Data Management*

#### Assignments (additional):

- **Quiz:** 2 minutes
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#### Access and explore specifications in Forma Build

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Upload specifications to Forma Build.
- Explore specifications in Forma Build.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

**Datasets:**

*The needed files are uploaded to Files in Data Management.*

**Assignments (additional):**

- **Quiz:** 2 minutes
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**Access Build on the Forma mobile app**

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Use the mobile app to view 2D sheets.
- Use the mobile app to view 3D models
- Use the mobile app to review specifications.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

**Datasets:**

*The needed files are uploaded to Files in Data Management.*

**Assignments (additional):**

- **Practice Exercise 1: Access and explore project information in Forma Build:** 20 minutes
  - **Quiz:** 2 minutes
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## **Module 2: Manage project communication using Forma Build**

### **Create and track issues**

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Create and track issues in Forma Build.
- Create issues on the mobile app.
- Use Photos to include references to issues.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

#### **Datasets:**

*The needed files are uploaded to Files in Data Management.*

#### **Assignments (additional):**

- **Quiz:** 2 minutes
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### **Create and complete forms**

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Create form templates in Forma Build.
- Complete and submit forms.
- Track completed form records.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

**Datasets:**

*The needed files are uploaded to Files in Data Management.*

**Assignments (additional):**

- **Quiz:** 2 minute
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**Create and process RFIs**

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Create RFIs in Forma Build.
- Track RFI workflow and responses.
- Create RFIs in the mobile app.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

**Datasets:**

*The needed files are uploaded to Files in Data Management.*

**Assignments (additional):**

- **Quiz:** 2 minutes
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**Create and review submittals**

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Create submittals in Forma Build.

- Track submittal review status.
- Manage submittal approvals.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

**Datasets:**

*The needed files are uploaded to Files in Data Management.*

**Assignments (additional):**

- **Quiz:** 2 minutes
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**BONUS (optional) Generate a submittal log using AutoSpecs**

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Upload specifications to AutoSpecs.
- Review the submittals log in the Smart Register.
- Publish submittals to Build.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

**Datasets:**

*The needed files are uploaded to Files in Data Management.*

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## **Communicate using meetings and correspondence**

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Record meeting information in Forma Build.
- Log and track project correspondence.
- Document actions, decisions, and communication history.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

### **Datasets:**

*The needed files are uploaded to Files in Data Management.*

### **Assignments (additional):**

- **Quiz:** 2 minutes
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## **Import and view schedules**

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Import a third-party schedule into Forma.
- View tasks in Gantt and list format.
- Filter and sort schedule activities.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

### **Datasets:**

*The needed files are uploaded to Files in Data Management.*

**Assignments (additional):**

- **Quiz:** 2 minutes
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**Create and track assets**

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Create assets in Forma Build.
- Track asset status and location.
- Organize asset information.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

**Datasets:**

*The needed files are uploaded to Files in Data Management.*

**Assignments (additional):**

- **Practice Exercise 2: Manage assets and project communication in Forma Build :** 20 minutes
  - **Quiz:** 2 minutes
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**Module 3: Control costs with Cost Management****Activate and set up Cost Management**

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Activate Cost Management in Forma for Construction.
- Create and configure project budgets.
- Import cost items and budget lines.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

**Datasets:**

*The needed files are uploaded to Files in Data Management.*

**Assignments (additional):**

- **Quiz:** 2 minutes
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**Create and manage payment applications**

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Create cost payment applications.
- Create budget payment applications.
- Compare budgeted, committed, and actual costs.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

**Datasets:**

*The needed files are uploaded to Files in Data Management.*

**Assignments (additional):**

- **Quiz:** 2 minutes
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## Forecast project costs

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Link schedule to budget items.
- Create distributions for budget items.
- Monitor cost performance over time.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

### Datasets:

*The needed files are uploaded to Files in Data Management.*

### Assignments (additional):

- **Quiz:** 2 minutes
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## Create a change order

**Total time required for module:** 15 minutes

**Discuss objectives:** 1 minute

**Demonstrate:** 3 minutes

- Create a change order.
- Examine the effect of the change order on the budget.
- Examine the effect of the change order on the forecast.

**Hands-on time:** 10 minutes

**Review objectives:** 1 minute

**Datasets:**

*The needed files are uploaded to Files in Data Management.*

**Assignments (additional):**

- **Practice Exercise 3: Manage project costs in Cost Management:** 20 min
  - **Quiz:** 2 minutes
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**Next steps: End of course (additional)**

- **Project challenge exercise: Create assets and document project communication in Forma Build:** 60 minutes
- **End-of-course exam questions:** 20 minutes