



# Syllabus

## BIM 322 – Revit MEP 2

### **Welcome to BIM 322!**

We're going to have a great time learning together!

### **Communication Policy**

You may contact me through the messaging system. Please communicate with me early and often if you are experiencing challenges in completing course assignments on time. I will answer your messages within 24 hours or less of receiving them.

### **Course Description (Goals and Objectives)**

The objective is to teach MEP engineers and designers how to apply Revit MEP to their trade. This course will focus on creating a set of MEP construction documents. We create the MEP sheets, annotations, notes and schedules necessary to finish deliverable drawings, extracting them from the Revit model.

The classes will be taught from the MEP engineer's and designer's perspective, but architects and others learning to enhance their competency in Revit can also gain valuable insight as the course unfolds, especially regarding the development of family files and also set-up for clash detection with Navisworks.

The class is designed to teach the necessary skills to understand how Revit MEP is used not only to integrate MEP systems into the building envelope but also how successfully using Revit MEP will facilitate collision detection within Navisworks.

### **Course Materials and Textbooks**

Recommended Text: Mastering Autodesk Revit MEP 2016  
Simon Whitbread

ISBN-10: 9781119059370

**NOTE:** The same textbook is used in the BIM 321 and BIM 322 courses.

### **Course Prerequisites**

Fundamental working knowledge of the Windows environment or instructor approval.  
Manual drafting experience preferred.

## Student Learning Outcomes/Learning Objectives

1. Explore the methodologies for turning a MEP building model into construction documents that can be used for construction.
2. Apply workflow strategies for efficient use of a BIM Model
3. Label building components using annotative elements to create a sheet view that can be used for construction documents.
4. Produce a set of working construction documents with annotations, detail callouts, and general notes.

## Autodesk Certification Exam Objectives

The curriculum covered in this course includes the following Autodesk Certification Exam Objectives:

Certification Exam Objective	Description
Collaboration Professional	Import AutoCAD files into Revit, Link Revit models, Create floor plans.
Documentation	Mechanical: Tag ducts and piping, Plumbing: Tag items, Electrical: Tag components, Create sheets, Add and modify text, Add and modify dimensions.
Elements	Differentiate system and component families.
Modeling	Electrical: Add and modify wiring.
Views	View models, Apply view templates, Create detail views, Electrical: Create and label wiring plans, Mechanical: Create and label HVAC plans, Plumbing: Create a plumbing view, Plumbing: Create and label plumbing plans.

## **Attendance**

To satisfy the course attendance requirements, students are typically required to complete at a minimum, the initial graded discussion forum engagement by the 4th day of the course and the midterm before the end of the 11th day of the course. All remaining course deliverables including the second graded discussion forum engagement, quizzes and final are due before the end of the 18th day of the course. Course attendance is also evaluated by the timely submission of a student's quizzes. Students who fail to participate in the graded discussion forum or attempt their quizzes by the 8th day of class will be considered "absent" by VDCI. Specific due dates for this course can be found in "Deadlines for Submitting Project Deliverables".

## **Participation**

Participation is evaluated by engagement in the Graded Discussion Forum. This forum encourages participation directly with instructors and students in a course. Typically, ten percent of the course grade is assigned for participation. A specific grading breakdown for this course can be found in "Weighted Grading Criteria".

## **Grading Policies**

After you have successfully completed all the requirements for your course, you will receive a VDCI course completion certificate. If you are a VDCI Technology Certificate student, your course must be taken for a letter grade. Classes that are taken as an Audit will not qualify for a completion certificate or count towards a VDCI Technology Certificate Program or VDCI Digital Badge.

You can change your VDCI grading option from letter grade to Audit any time BEFORE the 18th day of class by contacting either the Program Manager or Program Coordinator.

Letter grades are based on the following scale. Your final course grade is based on the weighted grading criteria of the points you have earned.

Passing Grades	
A+	100%
A	93-99%
A-	90-92%
B+	87-89%
B	83-86%
B-	80-82%
C+	77-79%
C	73-76%
C-	70-72%

Non-Passing Grades	
D	60-69%
F	59% and below

### Weighted Grading Criteria

Participation	10%
Quizzes	10%
Hands-On Quizzes	20%
Midterm Submission	20%
<u>Final Submission</u>	<u>40%</u>
<b>TOTAL</b>	<b>100%</b>

**NOTE:** Students can check their course progress in the Learning Hub at any time by clicking the Assignments link on the left sidebar of each course page.

### Deadlines for Submitting Project Deliverables

Project deliverables must be submitted to me through the Learning Hub.

1. One post in the course Graded Discussion Forum is due before the end of the first Monday (4th day) of the course. Your grade for this post will be reduced by 10% (one full letter grade) for every day the deliverable is late.
2. The midterm is due before the end of the second Monday (11th day) of the course. Your grade for this deliverable will be reduced by 10% (one full letter grade) for every day the deliverable is late.
3. All remaining course deliverables are due by the end of the third Monday (18th day) of the course. This includes the second graded discussion forum engagement, quizzes and final.

4. Course deliverables will not be accepted any later than one day after the course has formally been closed (19th day). Your grade will be reduced by 10% (one full letter grade) for being late.

**IMPORTANT:** Please review all course due dates in the Learning Hub.

### **Final Project Deliverable File Types**

When you submit your Final Project to me, please upload your Final Revit Model through the end of the course.

**EXAMPLE:** BIM322-Model.rvt

### **Discussion Forums/Student Engagement**

Please be engaged in the Graded Discussion Forum. Your postings and responses in the Graded Discussion Forum are geared toward expanding the learning experience for you and your classmates in meaningful ways.

**NOTE:** The Graded Forum is a required and graded element for this course.

Please read the instructions for each Graded Discussion Forum assignment as they may differ in terms of content and response requirements.

To effectively participate in the discussion forum, you can:

1. Take a leadership role by being the first to post a topically-meaningful response in the Discussion Forum.
2. Reply thoughtfully to the postings of your classmates, including rebuttal of ideas/opinions.
3. Expand on the comments in the Discussion Forum by posing thought-provoking questions and/or providing topically-relevant/related outside links.
4. Post in a timely manner.

When I grade your Discussion Forum comments, I am most interested the quality of your postings/responses. Your contributions should add to the knowledge base of our course participants and provide substantive thought to receive points. If you are less knowledgeable about a topic, pose questions about the topic and/or share what you find when you research the topic yourself.

### **Academic Integrity Policy**

The Virtual Design & Construction Institute (VDCI) is an institution of learning, career education, and technical skill development – a community based on academic honesty and integrity. As members of the VDCI community, faculty, students, and administrative staff share responsibility for maintaining this environment. It is essential that all members of the VDCI community subscribe to the ideal of academic honesty and integrity and accept individual responsibility for their work. Academic dishonesty is unacceptable and will not be tolerated at VDCI. Cheating, forgery, dishonest conduct, plagiarism, and collusion in dishonest activities erode the Institute's educational, research, and social roles.

If students who knowingly or intentionally conduct or help another student perform dishonest conduct, acts of cheating, or plagiarism will be subject to disciplinary action at the discretion of VDCI.