

EID 217 SYLLABUS

Class hours: Mon/Wed 8:30am-11:20am

Office hours: By appointment (Online)

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COURSE DESCRIPTION:

This course provides skill development for digital documentation and building performance simulation using variety computer programs. Students explore 3-dimensional construction documentation (e.g. floor plans, elevations, etc), building performance analysis, and organization of information.

CLASS FORMAT:

This is on-Line course, watching **Online videos**. There are multiple videos per each week, the individual video last between 2 minutes to 1 hour, average around 10 minutes. I will send out the weekly announcement to remind you at every Monday. The flexible framework does not require you to be in a specific location or specific time to watch the lecture. However, the online nature of this class will push you to take an active role in the learning process.

All assignments must be complete and submitted on time, unless otherwise arranged. Any unexcused late submissions will be marked down by one letter grade.

Required Learning Tools & Materials

You need to sign up **LinkedIn Learning account**. [HERE](#) is sign-up instruction and subscription information. The free trial account is good for one month, and after the first month you will need to **pay** for the second month subscription (about \$29.98), that will cover our first learning module (January to February). To set up your LinkedIn learning account, you watch this video "[How to get LinkedIn Learning Video Tutorials for 1 Month Free Trial?](#)".

After the **first two month**, if you decide the LinkedIn Learning is good platform and you would like to keep using it, it will be your decision to keep (and pay) the subscription. However, for this course, we DO NOT need the subscription for the rest semester.

You need to have access to Laptop or Desktop PC with **mouse**.

You need to have access to Autodesk Revit 2023 software, Autodesk FormIt software, and Autodesk Insight software.

[Autodesk Revit 2023](#) is a software helps designer, engineers and contractors create high-quality buildings and infrastructure information models. Use Revit to: (a) Model shapes, structures, and systems in 3D with parametric accuracy, precision, and ease, (b) Streamline documentation work, with instant revisions to plans, elevations, schedules, and sections as projects change, (c) Empower multidisciplinary teams with specialty toolsets and a unified project environment. You (student) can get **free one-year education access/account** to all Autodesk products, **renewable** as long as you remain eligible. You can set up your Autodesk account and get free software [here](#).

[Autodesk FormIt](#) is an intuitive conceptual modeling tool that allows you to sketch, collaborate,

analyze and present the early-stage design ideas. You should have **free subscription** that is associated with your Autodesk education account. Please see information for [education access](#) to Autodesk products.

FormIt has three version:

- You can download Formit for Ipad version (free) by clicking [here](#) or searching Apple store.
- You can download Formit for windows version (free) by clicking [here](#).
- You can use Formit for web by [launching FormIt Web](#) directly.

Autodesk Insight is a building performance analysis software, it is built-in Autodesk Revit. There is no download/installation required, if you already have the Autodesk Revit downloaded. You should have **free subscription** that is associated with your Autodesk education account.

REQUIRED ONLINE LEARNING MODULES

[Revit 2023: Essential Training for Architecture](#) (Imperial and Metric) on LinkedIn Learning (refer to video lists in course schedule)

[Autodesk FormIt](#) on youtube (refer to video lists in course schedule)

Autodesk Insight on youtube (refer to video lists in course schedule)

GRADING:

Assignment	Percentage %
Projects (4)	90%
Quizzes (2)	10%
Total	100%

COURSE LEARNING OUTCOMES:

By the end of this course, students should be able to:

- Demonstrate software proficiency in the use of AutoCAD and Revit as a means to produce 2-dimensional architectural/interior design construction documents.
- Organize information within the context of a construction documents set.
- Demonstrate understanding of how to provide accurate representation of specified finishes, fixtures and equipment.
- Demonstrate a fundamental understanding of how to navigate and apply building code considerations to construction documentation.

EID PROGRAM OUTCOMES:

1) Professionalism – understand, apply and participate in ethical design practices on a personal, project, peer and industry-wide level.

2) Process – ability to identify problems/challenges and demonstrate an understanding of the complete design process from inception to installation, execute documentation supporting design decisions and effect comprehensive, creative, focused and functional design solutions.

3) Principles & Priorities – integration of pedagogy, research, historic contexts, theory, and interdisciplinary collaboration to effectively and creatively analyze, evaluate and execute best design practices resulting in functional and aesthetically inspiring design.

4) Public & Environmental Protection – demonstrate an understanding of the concepts, resources and implications of design decisions relative to the human interaction, technological impact and ecological balance of the built environment.

5) Presentation – demonstrate ability to communicate design concepts and problem-solving justifications through written, oral and a variety of visual media.

Refer to CUH Student Handbook for mandatory adherence to the following policies:

- **Academic Honesty**
- **ADA Accommodation**
- **Title IX Compliance**
- **E+ID Professional Code of Conduct**

COURSE SCHEDULE (tentative)

Week	Date	Topic	Assignment
Module One: Autodesk Revit 2023			
W01	Mon 01/09	Revit 2023 - Introduction (7 segments, ~16 minutes) Revit 2023 - 1. Core Concepts (4 segments, ~27 minutes) Revit 2023 - 2. Interface Basics (6 segments, ~50 minutes)	Sign up LinkedIn account/ course Chapter quiz
	Wed 01/11	Revit 2023 – 3. Starting a project (8 segments, ~70 minutes)	Chapter quiz
W02	Mon 01/16	MLK day, No class	
	Wed 01/18	Revit 2023 – 4. Modelling basics (9 segments, ~87 minutes)	Chapter quiz
W03	Mon 01/23	Revit 2023 – 6. Sketch-based modelling components (9 segments, ~80 minutes)	Chapter quiz
	Wed 01/25	Revit 2023 – 9. Visibility and Graphic Controls (11 segments, ~85 minutes)	Chapter quiz
W04	Mon 01/30	Revit 2023 – 12. Annotation (5 segments, ~40 minutes) Revit 2023 – 11. Schedule and Tags (4 segments, ~42 minutes)	Chapter quiz
	Wed 02/01	Revit 2023 – 7. Stairs (4 segments, ~35 minutes) Revit 2023 – 10. Rooms (3 segments, ~23 minutes)	Chapter quiz
W05	Mon 02/06	Revit 2023 – 15. Sheets, Plotting and Publishing (9 segments, ~70 minutes)	Chapter quiz
	Wed 02/08	Working on Project 1 assignment	
W06	Mon 02/13	Working on Project 1 assignment	
	Wed 02/15	Working on Project 1 assignment	Project 1 due
W07	Mon 02/20	Working on Project 2 assignment	
	Wed 02/22	Working on Project 2 assignment	
W08	Mon 02/27	Working on Project 2 assignment	
	Wed 03/01	Working on Project 2 assignment	Quiz 1
W09	Mon 03/06	Working on Project 2 assignment	
	Wed 03/08	Working on Project 2 assignment	
W10	Mon 03/13	Working on Project 2 assignment	
	Wed 03/15	Working on Project 2 assignment	Project 2 due
W11	Mon 03/20	Spring recess, no class	
	Wed 03/22		
Module Two: Autodesk Insight			
W12	Mon 03/27	Autodesk Insight for Revit - The Basics (11 mins) Autodesk Insight webinar part 1: Learn everything about Insight (1 hour)	
	Wed 03/29	Autodesk Insight webinar part 2: Tips and Tricks (1 hour) Autodesk Insight webinar part 3: Practical examples (58 mins)	
W13	Mon 04/03	Working on project 3	Quiz 2

	Wed 04/05	Working on project 3	
W14	Mon 04/10	Working on project 3	
	Wed 04/12	Working on project 3	Project 3 due
Module Three: Autodesk FormIt			
W15	Mon 04/17	What is FormIt? (FormIt youtube Channel) FormIt Workflows - iPad Workflow (11 mins) FormIt Workflows - Revit + FormIt 3D Sketching for Design Options (5 mins) FormIt Workflows - Visualization Workflow (5 mins)	
	Wed 04/19	1.1 FormIt Snippets – Create Sketch Tools to 1.20 FormIt Snippets – Context Menu (20 segments. ~50mins)	
W16	Mon 04/22	2.1 FormIt Snippets - Sun and Shadow to 2.14 FormIt Snippets – Properties Palette (14 segments. ~30mins) 3.1 FormIt Snippets – Make Unique Groups and Nested Groups to 3.12 FormIt Snippets - Energy Analysis with Insight (12 segments. ~28mins)	
	Wed 04/27	Working on project 4	
	Wed 05/02	Working on project 4	Project 4 due

Marianist Values

Education for formation in faith

Provide an integral, quality education

Educate in family spirit

Educate for service, justice and peace

Educate for adaptation and change

Native Hawaiian Values

(Mana) E ola au i ke akua (‘Ōlelo No‘eau 364) - May I live by God

(Na‘auao) Lawe i ka ma‘alea a kū‘ono‘ono (‘Ōlelo No‘eau 1957) - Acquire skill and make it deep

(‘Ohana) ‘Ike aku, ‘ike mai, kōkua aku kōkua mai; pela iho la ka nohana ‘ohana (‘Ōlelo No‘eau 1200) - Recognize others, be recognized, help others, be helped; such is a family relationship

(Aloha) Ka lama kū o ka no‘eau (‘Ōlelo No‘eau 1430) - Education is the standing torch of wisdom

(Aina) ‘A‘ohe pau ka ‘ike i ka hālau ho‘okahi (‘Ōlelo No‘eau 203) - All knowledge is not taught in the same school