

# Course Syllabus

Course Number:	EID 319
Course Title:	EID 319: Advanced Computer Aided Design
Term:	Fall 2023
Course Credits:	3
Prerequisites:	EID 202, EID 217, or consent of instructor
Class Meeting Days:	Online, On-Demand Class Sessions
Class Meeting Hours:	At Your Own Discretion
Class Location:	N/A
Office Hours:	Fridays 12pm - 1pm By Appointment Only (Subject to Change)
Instructor Name:	Chretien Macutay, D. Arch., AIA
Email:	<a href="mailto:chretien.macutay@chaminade.edu">chretien.macutay@chaminade.edu</a>
Phone:	808.372.3661

## Course Description

This course provides skill development for digital construction documentation using Revit and Enscape software. Students explore 2-dimensional construction documentation (e.g. floor plans, elevations, lighting, detailing and schedules); organization of information; as well as 3-dimensional drawing and rendering techniques.

## Class Format

Each class will be a pre-recorded session that will consist of demonstrations & exercises to allow students to grow confidence and proficiency in using the software. As this is an online, on-demand course, students are expected to maintain their own self-directed schedule in keeping up with the course content, as well as meeting the deadlines for Exercises, Projects, and Quizzes. Class sessions will be posted online on our Canvas site.

Students are welcome and encouraged to email the instructor any questions they might have throughout the semester (please note that I will try to respond within a day or two, but weekend emails may not be seen until the following week). Regular instructor "Office Hours" will be available (by appointment only) for students who would like to schedule a one-to-one or group work session. Regular communication & announcements with the class will be conducted primarily through Chaminade's Canvas system.

## Course Learning Outcomes

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

- Demonstrate software proficiency in the use of Revit as a means to produce 2-dimensional & 3-dimensional architectural/interior design documents.
- Demonstrate a fundamental understanding of the concept of a Building Information Model (BIM).
- Organize information within the context of a construction documents set.
- Demonstrate an understanding of how to provide accurate representation of specified finishes, fixtures and equipment.
- Demonstrate a fundamental understanding of how to navigate their design model(s), as well as leverage real-time rendering software to communicate designed spaces.

## Assessment

Class Participation & Exercises (2)	10 %
Project #1	25 %
Project #2	25 %
Project #3	25 %
Quizzes (2)	15 %
<b>Total</b>	<b>100 %</b>

Note: Assignments handed in late will not be accepted unless arranged in advance with the instructor; 5 points will be deducted from the total number of points for each day the assignment is late beyond the prescribed due date.

## Evaluation Criteria

- Understanding of the course materials
- Thoroughness in exercises & assignments
- Attention to detail
- Technical proficiency
- Professional demeanor
- Timely submission of required tasks

## Required Learning Tools & Materials

- Laptop or Desktop PC with mouse (please ensure your PC meets the software system requirements)
- Autodesk Revit 2023 software installed
- [Enscape](#) software installed (version 3.5 or newer)

I have read, understand, and agree to the terms of the Course Syllabus.

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

EID 319 - Fall 2023

Proposed Schedule\* (Abbreviated) - **Version 1 (Updated 8/18/2023)**

*\*Schedule subject to change at any time*

Week 1	(Week of Aug 21)	<u>(Class 1) – Syllabus Review, What is “Advanced CAD” anyway?</u>  <u>(Class 2) – Introduction to Revit, Interface and Help, Project Browser, Properties, Views, Navigation</u>
Week 2	(Week of Aug 28)	<u>(Class 3) – Walls, Levels, Grids, Floors, Ceilings</u>  <u>(Class 4) – Start Project 1; Levels, Grids, Walls, Dimensions</u>
Week 3	(Week of Sep 4)	<i><u>Assuming No Class for Labor Day Holiday</u></i>  <u>(Class 5) – Continue Project 1; Grids, Dimensions, Rooms, Doors, Tags, Dimensions, Rooms</u>
Week 4	(Week of Sep 11)	<u>(Class 6) – Continue Project 1; Room Separation Lines, Importing Families/Components, Windows, Floors</u>  <u>(Class 7) – Continue Project 1; Titleblock, Sheets, Color Schemes, Reflected Ceiling Plans, Symbols, Text</u>
Week 5	(Week of Sep 18)	<u>(Class 8) – Continue Project 1; Text, Sheet List Schedule, Room Schedule, Ceiling Patterns and Ceiling Tags</u>  <u>(Class 9) – Continue Project 1; Editing Titleblock, Inserting Images, Loading Autodesk Families, Roofs, Camera/Perspective View, Graphic Display Options</u>
Week 6	(Week of Sep 25)	<u>(Class 10) – LIVE CLASS Finish Project 1; Printing, Exporting, Openings, Visibility/Graphics, Areas, Stairs</u>  <u>(Class 11) – Start Exercise 1; Introduction to Families, Extrusions</u>
Week 7	(Week of Oct 2)	<u>(Class 12) – Finish Exercise 1; Void Extrusions, Materials</u>  <u>(Class 13) – Introduce Project 2; Model Lines, Detail Lines, Drafting Views, Filled Regions, Linking/Importing CAD, <b>Submit Project 1 by End-of-Week (EOW)</b></u>
Week 8	(Week of Oct 9)	<i><u>Assuming No Class for Indigenous Peoples’ Day Holiday</u></i>  <u>(Class 14) - Start Project 2; Modifying &amp; Adding Levels; Wall Type Structure &amp; Location Line; Curtain Walls; Floors; Creating New Sheet Editing Titleblock <b>Submit Exercise 1 by EOW</b></u>
Week 9	(Week of Oct 16)	<u>(Class 15) - Continue Project 2; Reflected Ceiling Plan; Adding Views to Sheets; Interior Elevations; Loading Autodesk Families; Placing Furniture and Bookshelves; Painting Surfaces; Material Browser and Modifying Materials</u>  <u>(Class 16) - Introduce Project 3 Assignment; Continue Project 2; Railings; Edit View Range; Stairs</u>

Week 10	<i>(Week of Oct 23)</i>	<p>(Class 17) - (In-person Class); Continue Project 2; Introduction to Enscape; Enscape Interface  <a href="#">Quiz #1 Due by EOW</a></p> <p>(Class 18) - Start Exercise 2; Extrusions; Blends/Void Blends</p>
Week 11	<i>(Week of Oct 30)</i>	<p>(Class 19) - Finish Exercise 2; Assigning Materials to Geometry; Changing Family Category; Continue Project 2; Furniture Schedule; Specialty Equipment Schedule</p> <p>(Class 20) - <b>LIVE CLASS</b> Finish Project 2; Lighting; Colored Elevations; View Templates; Split Face and Paint; Rendering Enscape View into Project;</p>
Week 12	<i>(Week of Nov 6)</i>	<p>(Class 21) - Start Project 3; Enscape Asset Library; Placing and working with Enscape Assets; Link Revit family to Asset; Enscape Material Library; Adding/Modifying Enscape Materials to Project</p> <p>(Class 22) - Continue Project 3; Modifying Revit Light Fixture Properties (Illuminance and Color Temperature); Creating a "Rug"; Editing Wall Profile to create Accent Wall  <a href="#">Submit Exercise 2 by EOW</a></p>
Week 13	<i>(Week of Nov 13)</i>	<p>(Class 23) - Finish Project 3; Enscape Orthographic View; Enscape Linked Asset Rotation; Revising Titleblock; Phases; Design Options</p> <p>(Class 24) - Recap; Final Topics  <a href="#">Submit Project 2 by EOW</a></p>
Week 14	<i>(Week of Nov 20)</i>	<p>(Class 25) - Final Topics</p> <p>(Class 26) - Final Topics</p>
Week 15	<i>(Week of Nov 27)</i>	<p>(Class 27) - No Class; Time allotted to Finish Assignments</p> <p>(Class 28) - No Class; Time allotted to Finish Assignments  <a href="#">Submit Project 3 by EOW</a>  <a href="#">Quiz #2 Due by EOW</a></p>
Week 16	<i>(Week of Dec 4)</i>	<p><i><a href="#">Finals Week - No Class</a></i></p>