

DYNAMO VISUAL PROGRAMMING

Location: **Online**
Instructor: **Prof. M.T.Chang, Phd.**
Office: **By appointment**

COURSE DESCRIPTION

From its origins as an add-on for Building Information Modeling in Revit, Dynamo has matured to become many things. Above all else it is a platform, enabling designers to explore visual programming, solve problems, and make their own tools. This class starts our journey with Dynamo by setting some context - what is it and how do I approach using it?

WHAT IS VISUAL PROGRAMMING?

Designing frequently involves establishing visual, systemic, or geometric relationships between the parts of a design. More times than not, these relationships are developed by workflows that gets us from concept to result by way of rules. Perhaps without knowing it, we are working algorithmically - defining a step-by-step set of actions that follow a basic logic of input, processing, and output. Programming allows us to continue to work this way but by formalizing our algorithms.

COURSE OBJECTIVES

This course will introduce students to using Dynamo Visual Programming for computational design methodology techniques, communication, and representation. The class will introduce essential software concepts and hands-on operations with Dyanmo. Hands-on exercises will lead students through the software concept, standard design systems, and creating parametric forms.

COURSE FORMAT

This course will be weekly topic with lectures, exercises, and homework assignments. Lectures will be presented in each class online. Selected guest speakers from prominent firms will present their use of the program in youtube. As an option, students can creatively use this class as an opportunity to integrate their own projects; however, this course's main focus is to introduce a software as a tool.

SOFTWARE AND HARDWARE

It is entirely students' responsibility to setup their own computer with software tools to complete the assigned work. It is student's responsibility to obtain software for this class' use. You also need a capable computer to do our class activities. I am NOT responsible of setting up your computer, or tech support your software. Since this class is conducted entirely online, and we are NOT conducted this course in the cadLAB, so do NOT rely on school to provide you with software or hardware. Students are responsible for making back-up copies of their work and keeping track of them. Work that is not submitted on time because of hard drive or flash drive failure will be penalized as late. Our official class cloud space is: Google Drive.

It is free, and use ssaonlinecourse@gmail.com to share your files with me. You will NOT able to complete this course without file sharing with me! Please use mtchang@ccny.cuny.edu for correspondent.

SOFTWARE IN SPOTLIGHT

Autodesk Revit 2019 or 2020- free for students to download.

Dynamo- free for students to download.

EVALUATION

This is a three credit course that will take up a semester online. DO NOT THINK THAT YOU CAN FINISH THIS COURSE IN A DAY! SET ASIDE AT LEAST 5 HOURS A WEEK TO DO THIS COURSE.

Please keep this in mind as the required commitment from you for this course.

We don't meet in a classroom setting, but you are required to go to our class room website to complete all necessary components in order to receive a passing grade. You will NOT able to move to the next session without complete within an allowable time frame. Online course is time restricted. ***Please do not register this course, if your time management skill is weak.***

Assignments

Assignments will be graded based on how well they show understanding of the specific learning objectives; thoroughness, completeness, and care in completing the exercise; graphic and aesthetic quality; seeking out help when necessary.

On most assignments it will be possible to go beyond the minimum requirements, explore additional features of the software, and take the assignment further. This is recommended, and will be considered in grading. There will be a limited number of extra credit assignments.

The assignment for the entire term will be on our website that you will develop further each week. Student building Revit files will be submitted each week for review and should clearly demonstrate understanding and practice of the topics discussed the previous week. At the end of the term all the buildings will be brought together in one class site model to show how to use collaboration in the program.

Class Information

The class is an entirely online course. You will diligently do class activities every week, in order to pass a course.

You need to obtain a Gmail account to use Google drive. You need to submit your assignments on to the Google drive every week. **YOU WILL NOT ABLE TO PASS THIS COURSE, IF YOU DIDN'T SHARE YOUR ASSIGNMENTS ON YOUR GOOGLE DRIVE WITH US.** You fail to share your works with us, and it means that you fail to do your assignments. There will be a submission form for you to submit your works online.

Quiz will be throughout every session! You can try as many times to pass, but only the last four attempts will be recorded. You will NOT get any score, if you fail to pass any quiz more than 4 times. Please see grading policy for further explanation.

Grade Breakdown

See Grading Policy.

(Note: Late assignments may NOT be accepted!)

Academic Misconduct: The University Student Conduct Code (available at conduct.uoregon.edu) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations without express permission from the instructor. Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas) and use only the sources and resources authorized by the instructor. If there is any question about whether an act constitutes academic misconduct, it is the students' obligation to clarify the question with the instructor before committing or attempting to commit the act.