(40 pts) Approx. 3 days

This unit gives you a chance to design a new residential structure following the design parameters outlined in your client request. Here you'll start by choosing a design project, and then getting to work brainstorming and designing your new residential home.

LATHROP DESIGN
architecture studio

1. Start by watching the presentations *Architecture Design, Floor Planning* and *Design Ideas*. Start taking some notes on these ideas, and start to think about which challenge you want to tackle!
2. Next, you'll need to pick a design challenge. Each challenge is briefly summarized below, and there are full design parameters listed on our class website:

☆ **DESIGN CHALLENGE 1: Home Redesign**	☆ **DESIGN CHALLENGE 2: College Dorm**
Your family is interested in redesigning and completely rebuilding your home. If you choose this design challenge, you'll be tasked with creating a new home with your own family's needs in mind. In this challenge, you'll be limited to 150% of your current home size.	UAF is looking to make some new 4-person apartment-style dorms, and you could design them! In this challenge, you'll be asked to make a 4-bedroom, 2-bathroom dorm for UAF.
☆ **DESIGN CHALLENGE 3: Mars Habitat**	☆ **DESIGN CHALLENGE 4: Emergency Housing**
NASA is working with Space-X to create a manned station on Mars, and you could be the one to design it! In this challenge, you'll be asked to create a 12-person Mars station made up of 6 octagonal units.	The Federal Emergency Management Agency (FEMA) is trying to design new, efficient, emergency housing for use in disaster areas, and they've come to you for a design! Here you'll be designing small single-family short-term housing units.

3. Now, create at least 2 complete bubble diagrams to help organize and brainstorm possible design layouts. Include your bubble diagrams in your engineering notebook.
4. Finally, get into Revit and start to build the basic framework of your residential design. Make sure that your design includes floors, ceilings, walls, roofs, windows, and doors. Enough to start getting things well-organized.

Part 1: Tasks	5 points	4-3 points	2-1-0 points
🔲 Design Notes	+ You took a page of notes on your chosen challenge + Your notes include details on your constraints and other design elements	- Your notes are less than a page or missing important information	- Your notes are severely lacking
⊕ Bubble Diagram	+ You created at least 2 bubble diagrams to brainstorm possible layouts	- You only completed 1 bubble diagram	- You did not make any bubble diagrams
	30-20 points	**19-10 points**	**9-0 points**
⊕ Revit Design	+ You built your basic Revit design + Your basic design includes walls, floors, ceilings, a roof, windows, and doors + Your basic design follows all the criteria outlined in your chosen challenge	- Your basic design is missing important elements - Your basic design does not meet all criteria	- Your basic design does not follow the parameters at all