ARCH 331. Learning Portfolio[1]

Date: *due 12/3/13*   *Graded work*
                                                                                      (*1.5x quiz*)

Description:
The portfolio is commonly used in architectural design to demonstrate what you have learned and are capable of producing, as well as to sell your services to clients. This portfolio will specifically demonstrate what you have learned in ARCH 331 this semester. An important part of the learning process is reflecting on what you have learned, how you have learned it, and how you know that you have learned it. The process of putting together a learning portfolio will facilitate this reflective process and allow you to describe and document your learning.

Your learning portfolio will have two components: (1) a reflective essay that communicates your description of what you have learned this semester in ARCH 331, how you have learned it, and how you know you have learned it; and (2) a set of documents that illustrate what you describe in your reflective essay. The reflective essay is described in more detail below. Possible and required illustrative documents are listed in a following section.

Reflective Essay:
Using the statement below as a catalyst, reflect on your learning experience, with special focus on these four areas: *structural concepts, structural skills, problem-solving abilities,* and *learning abilities.* The questions below will get you started, but you are encouraged to use these only as a starting point. As you consider the quality and quantity of what you have learned, remember to refer to your supporting documents as evidence of this learning. For example, you might write that "The _____ assignment required me to _____, and by doing this, I understood _____ more clearly. This is illustrated in Appendix 1, where you will see my original assignment along with the revised assignment and *my detailed **description** of what changes I made and **how I knew** to make them, and **why** I made them*." The above example refers to a specific area of improvements or learning and relates it to a document that illustrates that learning. The more concrete your illustrations, the better. You must include reflection of your physical math aptitude prior to the class and how your aptitude has changed through this course.

Architectural Structures Concepts:
What are the major structural behavior, analysis or design concepts that I have either learned for the first time or learned at a deeper level? What do I understand now that I did not understand at the beginning of the semester? What concepts were difficult to understand? How do I know that I understand these concepts? Have I improved my ability to articulate the meaning of these concepts? Have I recognized these concepts when they come up in other courses or in my everyday experience? Can I describe any structural concept with an operational definition?

Architectural Structures Skills:
How confidently can I establish a free body diagram with unknown quantities and set up the equations for equilibrium? Am I able to relate the unknown quantities to the type of structural member or to design requirements, like stresses and strains? Am I able to calculate geometric properties important to analysis? Do I know how to use design aids, and charts, and the design methods they can be used with and so on?

[1] Content adapted or repeated in entirety from Spring 2004, Math 131 - Learning Portfolio, Prof. Nancy Simpson

Problem-Solving Abilities:
Am I willing to explore and persevere with a problem that I have never seen? Have I gained confidence in applying structural concepts and processes to new situations? Have I learned to solve problems involving loaded areas or lengths that I can trace for a structural analysis? Do I know what correction needs to be made if my beam deflects too much?

Learning Abilities:
What have I learned about myself as a learner? Have I grown in my ability to formulate and ask questions that help me deepen my understanding? Have I identified my learning strengths? Have I identified my weaker learning styles and found ways to strengthen them? Have I developed skills in working and learning with other people? What learning activities did I respond to most easily? Why? What learning activities did I find most difficult? Why?

Illustrative Documents:
These should be selected from all of the work you have done this semester for the purpose of illustrating what you write in your reflective essay. Possibilities include in-class exercises or quizzes; assignments, projects; examples of architectural structures or related concepts from other courses, newspaper articles, and the like; e-mailed explanations to friends; analysis of before and after self-assessment; copies of your reading notes; other work that you may do specifically for this portfolio; and so on. You *must* include a revision to an assignment or quiz and **describe** how you know what you did in the revision; not just what you did, but **why** you knew what to do.

Format:
The format that you choose for presenting your portfolio is up to you. A notebook or folder with dividers is one option. Those of you who prefer electronic formats may wish to do something with a Web page or other electronic means of presentation. You choose a format that works best for you.

Evaluation Criteria:
Your portfolio will be evaluated over the following:
1. Completeness (40%)
    a. Have you addressed all four areas of interest?
    b. Within the areas "structural concepts" and "structural skills," have you included **all of the key concepts and skills** we have covered this semester?
    c. Have you included documents that illustrate the points you make in your reflective essay? Have you reflected on your math aptitude and growth, and provided an example revision with appropriate narrative?
2. Depth of reflection (45%)
    a. Does your reflective essay go beyond surface statements and does it demonstrate that you have examined not only the "what" but the "how" and the "why" of your learning?
    b. Does your portfolio demonstrate growth?
3. Organization and readability (15%)
    a. Is your portfolio organized in a way that makes it easy to read and understand?
    b. Is your reflective essay free of mechanical (spelling, grammar, bad URL links, and the like) errors?
4. Above and beyond (5% or more)
    This section is included for innovative and creative content or quality that I have not explicitly asked for.