

**Technical Design 242 Syllabus**

**Instructor: Ron Raty**

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Phone: (360) 475-7389

Office hours:

Monday and Wednesday 3:00 pm to 5:00

**Course Description:**

This course is an introduction to computer aided drafting (CAD) using the Autodesk REVIT software program.

“Autodesk Revit is building information modeling software for architects, structural engineers, MEP engineers, designers and contractors. It allows users to design a building and structure and its components in 3D, annotate the model with 2D drafting elements, and access building information from the building model's database. Revit is 4D BIM capable with tools to plan and track various stages in the building's lifecycle, from concept to construction and later demolition.”

[http://en.wikipedia.org/wiki/Autodesk\\_Revit](http://en.wikipedia.org/wiki/Autodesk_Revit)

**Course Outcomes:**

Upon successful completion of this course, the student will be able to:

- Use Revit to create 3 dimensional models of a residential building.
- Use Revit to create 2 dimensional construction documents
- Use Revit to extract building information data from a Revit model
- Use Revit for Architecture, Civil, Structural, and MEP applications.

**Prerequisite:**

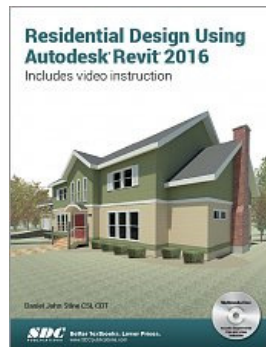
The class is designed to be independent of previous classes. There is no pre-requisite. However, students will find it personally beneficial to use the knowledge of previous classes so they can use this opportunity to practice their design skills under the supervision of an architect. Student success will not be based on the aesthetics of their building design, but creative building designs can make certainly make the class more fun.

**Recommended Text:**

Residential Design Using Autodesk Revit 2016

Daniel John Stine

SDC Publications



**Course Requirements:**

**Assignments/project**

The text book is well organized into a series of exercises and a project. We will work through those exercises and complete the projects. You will be asked to periodically print and turn in the appropriate parts of your projects. For the most part, the information required is included in the book, so most of the class will be spent in lab mode. You as the student will be completing the work in the book, you will not have to suffer through hours of lecture or demonstrations. Demonstrations for specific functions may be provided if requested, however most of the instruction will be provided one-on-one for specific student issues.

**Revising or correcting drawings:**

Submittals cannot be resubmitted. Red lines, corrections and modifications will be picked up during the next submittal. If you have an incomplete or improper submittal, like in the real world, you will have to make it up on the next submittal. The project will proceed on schedule regardless of your readiness.

**What is Cheating and what is allowed**

All assignments are to be the original work performed by the student. Students may collaborate for ideas, concepts, and support, but each shall create and produce their own drawings. Sharing of computer files, or cutting and pasting drawings, is strictly forbidden, unless required by the assignment description. Consulting with each other is encouraged, but make sure you are the one creating your own drawings and designs.

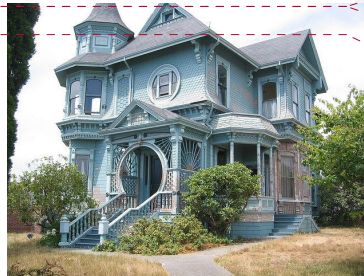
**Drawing Assignment Grading Criteria:**

Assignments will be in the form of submittals you will make to show the progress on the class project. Grading will be based on the following criteria.

- 10% timeliness. If it is turned in on time, you are good.
- 80% completeness of the assignment. Are all the components included.
- 10% Design challenge. The class project is not real exciting. You are encouraged to modify and expand it to make it more interesting.



Few design challenge points



Lots of design challenge points

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Commented [RR3R2]:  
Commented [RR1]:

These drawings we create do not have to be complete contract documentation of your project, but merely an example showing you know how to create these drawings. Because you are allowed to modify the book assignments, you don't have to follow them to the letter.

You will notice there is no grading criteria for constructability. Let's not let reality get in the way of creativity. There will be plenty of time for reality later in life.

Drawing Storage and documentation

All electronic drawings should be stored on electronic media that you won't lose, or on the OC network. Back up your data often. Don't store your drawings on the local computer ('c' drive, or desktop), they are wiped every night.

Turning in assignments:

All assignments are to be copied or plotted and turned in on paper. The exact format will be dependent on the assignment.

**Quizzes**

There will be several on-line quizzes based on information in the book. They are open book and can be completed at any time, once they are made available.

**Portfolio**

A portfolio is required for this class. The portfolio is NOT a history of this class. It is a tool designed to showcase your talents so you can get a job. This class will provide you with an excellent opportunity to create some interesting, complex, creative, portfolio ready drawings. I review the portfolio, not as an instructor, but as if I were a potential employer. Proper preparation of a portfolio allows students to showcase their work as well as hinting about their personality and professionalism. This is an important part of job interviews, and the student will be well served by beginning their portfolio now. The portfolio doesn't have to be expensive, but it should be professional looking and demonstrate your pride of the contents. For additional information for portfolio requirements, refer to my Professor Online web page.

**Final Grade**

Your final course grade will be based on a percentage system:

projects	60%
quizzes	30%
Portfolio	<u>10%</u>
Total	100%

The final grade recorded with the registrar is based on the percentage of available points you manage to earn during the course compared to the total possible. The total possible may vary depending on the progress of the quarter, but it is always 100%.

93%	4.0
83%	3.0+
73%	2.0+
63%	1.0+
60%	0.7+

Any percentage less than 60% is inadequate to receive class credit, and a grade of 0.0 will be recorded.

**Withdrawal:**

If you decide that you must withdraw from this class, you must do so in conformance with Olympic College policy. A discontinuance of attendance without an Official Withdrawal Form or prior arrangement with the Instructor is an automatic 0.0 (F) for the class. This is school policy and governs all classes conducted at Olympic College.

**About the Instructor and this class**

Ron Raty is a licensed architect with over 25 years of experience in architectural design and project management. He does not think of himself as a professional teacher. Because of this, his classes are managed in a manner similar to a design studio in a company, students should think of themselves as employees. They should arrive at work on time, they should complete their work in a timely manner, they should dress appropriately and act professionally, they should show respect for their fellow employees and their employer. As in the work place, failure to do these things can have consequences.

**American Disabilities Act Statement**

Any student who feels he/she may need an accommodation based on the impact of a disability should contact the office of Access Services. Access Services will inform the instructor of any special accommodations required.

Humanities and Student Services Building, Room 204  
Phone: 360-475-7540 or 1-800-259-6718 ext. 7540  
Fax: 360-475-7436  
E-mail: AccessServices@olympic.edu

**A drafting station at home:**

If you would like to work on your drawings at home, you will need a computer powerful enough to run the Autodesk software. Recommended computer specifications are available from the Autodesk website. You can also download student versions of the software for free from Autodesk to install on your home computer or a laptop computer.

**A word about equipment:**

The computer lab has 20 CAD stations in it. If repairs are needed to your computer, please notify the instructor. Do not attempt to repair the computer yourself. For those that prefer to use their lap top in class (it is configured and familiar, certainly an advantage), tables are available for your use.

**Cell Phones:**

Cell phone use during lectures and presentations is prohibited in the classroom. Please set your phone to vibrate or turn it off. If you have to take or make a call during class, please step out of the classroom as a courtesy to others.

**Food and Drink:**

In accordance with school policy, food and drinks are not allowed in the drafting room. During lab time, students may come and go as necessary to refresh themselves. Restrooms are down the hall towards the Welding lab.