

Technical Design 128 Syllabus

Instructor: Ron Raty

Office: BUS 211

Email: rraty@olympic.edu

Phone: (360) 475-7389

Office hours:

10:00-01:00, Monday and Wednesday

Course Description:

This course is an introduction to creating contract documents for residential building construction. A major part of those documents includes the drawings and specifications that describe the building to be constructed. Those documents provide double duty, also serving as the documents submitted to a building department for permitting purposes. Most of the class will be dedicated to the creation of those documents, using a variety of computer softwares and even some hand drawing/sketching skills.

Course Outcomes:

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

- List the information included in a set of Preliminary residential building drawings
- List the information included in a set of Design Development drawings
- List the information included in a set of Permit drawings
- List the information included in a set Construction Contract Documents
- Create a set of building plans to meet any of the above criteria using appropriate CAD software.
- Create drawings that are clear, concise, and properly communicate the design intentions using industry accepted graphic standards.
- Generate the above information, or cite a source where the information can be obtained.
- Find and interpret building code requirements.

Prerequisite:

The class is designed to be independent of previous classes. There is no pre-requisite. However, students will find it personally beneficial to have taken Tec-D 127 prior to this class, 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:

Architectural Drafting and Design

Jefferis, Madsen, Madsen

There are numerous good texts available, we don't all have to have the same one. The one above will be the one referred to by the instructor, however, there is nothing wrong

with the opinions of other authors as well. Students could even use “on-line” references as their “text”.

Course Requirements:

Assignments

The first portion of every class is dedicated to demonstrations, lectures, or activities designed to convey knowledge and understanding of the subject. After class demonstrations, an assignment will be given which will test your abilities to apply the information from the demonstration and from the book readings. Unless noted otherwise, drawing assignments are due by the end of the following class.

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 your projects.

- 20% Assignment accuracy – Does the submittal show an understanding of the material, and development of your design. Is the submittal sufficiently complete for the phase of the design.
- 20% Timeliness – Is it turned in by the due date? In an office, on an actual paid project, this is critical. There are many people that have set their schedules dependent on your timely submittal. Missing a submittal deadline will automatically deduct 20%.
- 20% Technical Accuracy – does your drawing follow the proper graphic standards: line weights and types, dimensions, labels, and otherwise technically correct?
- 20% Critical Proofing – If there is something obviously wrong with your drawing and you ignore it, you may lose big points even if it is a minor error. This is because you need to learn to look critically at your own work (called proofing), particularly after it has been printed, and correct any minor issues before turning it in. Before turning in a final print, take 3 minutes to look it over and make sure there is nothing obviously wrong. You can even ask someone else to look at it, sometimes a fresh set of eyes will see things you don't.

- 20% Composition - Is your submittal properly composed? Does it look professional? Is it centered on the sheet? Does it look organized, neat, and tidy, or is it a hodgepodge of data randomly thrown onto the sheet.
- All or nothing. Does it have your name? Assignments without a name will not receive credit, and might not be returned.

You will notice there is no grading criteria for constructability. Although we will cover constructability issues, it is not a focus of this class. 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

Paper drawings and sketches should be kept in your project binder or folder, for future use and reference. All electronic drawings should be stored on electronic media that you won't lose, or on the OC network. Back up your data often.

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.

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.

Project Binder

At the end of the quarter, you will submit a project binder of your personal project that will include all the documents created during the design, reduced size prints of all submittal documents, meeting notes, etc. In an office, nothing is thrown away, all documents created in an office are kept...just in case.

Exams

An exam may be given at the end of the quarter. It will be conducted on-line, and can be completed from home, or from the computer lab.

Attendance and Participation

The advantage of taking a class such as this is the opportunity to see how others solve the same architectural problem with which you are wrestling. It will broaden your horizons to see the endless possibilities. Therefore, attendance in all classes is encouraged. This class uses an active learning process where you learn by doing and sharing with others, so most of your time in class will be spent practicing your skills. The

Your attendance will be noted on a class by class basis and this record counts for a portion of your final grade. *Students arriving after attendance has been taken may not get credit for attendance.* As in most offices, you are allowed a couple of sick days. You can miss up to two classes without it impacting your grade.

Final Grade

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

Submittals – personal project	50%
Submittals - revit project	25%
Portfolio	05%
Personal project binder	10%
Final and/or quizzes	<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 Autocad 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. In addition, there are CAD stations in the Science and Technology computer lab for your use when this CAD lab is not available. Do not modify classroom computers. 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.