

SANTA ANA COLLEGE, Engineering 154, 3 units credit. section 28080, 02/08/10 - 06/02/10

Spring 2010, Class Schedule: 6 - 8 p.m., Wednesday, suggested schedule 2 hours lecture, 4 hours lab, and time on your own to do lab work, reading, assignments, studying, drawings, quizzes. Total 9 hours per week of 16 week semester. Passing grade on IN PERSON Final exam required to pass this class.

Instructor: Susan Sherod

Office: A107-12, phone: 714-564-6787 email: sherod4sac@yahoo.com

Office hours: See course Bb website Staff link. No office hours on holidays when campus is closed.

The CAD Lab schedule is available at the [Engineering Department website](#).

Textbooks: All information in the class website is required reading. Lectures, Labs, Quizzes, Assignments, Course Documents, Quizzes and more are posted online.

Architectural Drafting and Design, 4rth or 5th Ed. by Alan Jefferis & David A. Madsen (DD:J&M)

This syllabus may be adjusted over the duration of the course. Review the Course website a few times per week for updates. Note: Assume proportional sizes for problems that do not provide dimensions.

COMPLETE ASSIGNED READING, LECTURE AND LAB MATERIALS BEFORE ATTEMPTING PROBLEMS, TEST DRAWINGS, OR QUIZZES. SUBMIT ASSIGNMENTS IN ASSIGNMENT LINKS WHEN DUE. NAME FILES AS DIRECTED FOR TESTS, AND FOR HOMEWORK USE THIS FORMAT WITH page number first: pXXX_FigXXX_186_wkX_last_first.XXX. Student name and Filename must BOTH appear in the digital versions of the drawing. ASSIGNMENTS ARE GRADED FOR PROGRESS APPROXIMATELY EVERY FOUR WEEKS. ALWAYS BACKUP ALL YOUR WORK TO A SEPARATE DRIVE. CORRECTIONS RETURNED TO YOU AND ADDITIONAL COMPLETED WORK MAY BE RESUBMITTED FOR RECHECK AT MIDTERM AND FINAL REVIEWS. QUIZZES WILL BE POSTED BY 12:00 A.M. MONDAY IN WEEKS GIVEN. SUBMIT THE CURRENT QUIZ EACH WEEK BEFORE 12:00 A.M OF THE FOLLOWING MONDAY. THERE ARE NO MAKE-UP QUIZZES. ALL STUDENTS MUST LOGIN TO BLACKBOARD FOR COURSE WEB MATERIALS EACH WEEK. NOTE: Bb uses your WebAdvisor ID and password.

Unit I.

2/10 Week 1

Lecture 1 - Intro. to Bb, Introduction to course. AEC design concepts, Software concepts and organization of work.

ASSIGNMENTS: See Bb

QUIZ 1 - nongraded practice quiz

2/17 Week 2 - note: campus closed on 2/15 for Holiday, Bb available 24/7

Lecture 2 - Text, One Story Basics - Default, Families, Creation and Modifying Walls, Doors, Windows, Floors, Roofs

ASSIGNMENTS: See Bb

Drawing TEST 1

2/24 Week 3

Lecture 3 - Creating Views, Adding Sheets, basic commands review, Adding: stairs, railings

ASSIGNMENTS: See Bb

QUIZ 2**Unit II.****3/03 Week 4****Lecture 4 - Foundations, creating slabs**

ASSIGNMENTS: See Bb

Drawing TEST 2**3/10 Week5****Lecture 5 - Multiple building levels**

ASSIGNMENTS: See Bb

QUIZ 3**3/17 Week 6****Lecture 6 - Adding Section and Elevation Views**

ASSIGNMENTS: See Bb

Drawing TEST 3**Unit III****3/24 Week 7****Lecture 7 - Adding, Placing, Editing Dimensions**

ASSIGNMENTS: See Bb.

QUIZ 4**3/31 Week 8 note: campus closed March 31, Holiday, Bb available 24/7****Lecture 8 - Midterm Exam March 29 ONLY**

ASSIGNMENTS: See Bb. Review and complete all incomplete prior drawing assignments. There is no need to resubmit work that was correct and completed, however if you corrected your prior work, you should resubmit it.

MIDTERM 3/29 - Midterm to be taken online, Drawing TEST 4 due this week; Week 1-8 work submitted after this date is LATE.

SPRING BREAK! NO CLASSES & CAMPUS CLOSED FROM APRIL 5 THROUGH APRIL 11

4/14 Week 9**Lecture 9 - Adding Electrical, Plumbing and HVAC, Intro. to Revit MEP & Energy Analysis**

ASSIGNMENTS: See Bb

QUIZ 5**Unit IV****4/21 Week 10****Lecture 10 - Adding Schedules, and Symbols. Room Finishes, Door, Window, Electrical,**

Plumbing,

ASSIGNMENTS: See Bb

Drawing TEST 5**4/28 Week 11****Lecture 11 - Adding Structural Content, Intro. to Revit Structural**

ASSIGNMENTS: See Bb

QUIZ 6**Unit V****5/5 Week 12****Lecture 12 - Adding Interior content, Interior elevations, Adding Exterior Content (Entourage)**

ASSIGNMENTS:

Drawing TEST 6**5/12 Week 13****Lecture 13 Design Visualization, 2D/3D**

ASSIGNMENTS: See Bb

QUIZ 7**Unit VI****5/19 Week 14****Reading: AAAD:WW-Chapter 10, Working Drawings, Reproduction and Control of Drawings & Documents**

ASSIGNMENTS: Review all work for the class to date. Organize your layouts, check your spelling, be sure the layer names are correct and that files are set up properly with layouts scaled appropriately. Do online research to locate information about current practices for document management and control. Publish your work to your own class website using the Week 14 Lab template and the Blackboard Tools option to do so. You may embellish this website beyond the basic provided template if you wish.

Drawing TEST 7**5/26 Week 15****Lecture 15 - Adding Details**

ASSIGNMENTS: See Bb

QUIZ 8**6/2 Week 16 note: campus closed May 31, Holiday, Bb available 24/7****Lecture 16 - Review for Final Exam**

ASSIGNMENTS: Add landscape elements, and hardscape elements for a driveway, and sidewalks to your site plan using the correct layout tab

Drawing Test 8

6/2 - FINAL REVIEW/EXAM: Comprehensive final must be taken online in the CAD Lab at SAC during regular class time 6-8 p.m. Your class work files must ALL be turned in to the instructor via the Assignment links for Final Review **NO LATER than Monday, June 6 at 11:59 p.m.** There is no need to resubmit files for which you have already submitted correctly completed work in prior Assignment links. Any work submitted after 6/05/06 is LATE, and may not be graded.

Quizzes: MISSED QUIZZES CANNOT BE MADE UP! YOU MUST LOGIN AND TAKE THE QUIZ DURING THE WEEK IT IS POSTED.

If you plan to become knowledgeable about AEC you must commit yourself to read, study, and practice in a highly productive manner. You must be involved in the learning process 100%. Important aspects of your involvement include (1) Attendance & Participation, (2) Utilization of textbook and internet resources. This syllabus may be subject to minor modifications.

Best wishes to each of you for a successful semester in Engineering 154!

ENGINEERING 154, COURSE INFORMATION

CLASS DESCRIPTION:

This course will focus on AEC 3D Parametric drawings. Applications include Architectural, Civil Engineering, and Construction drawings/documents. Drawing setup, visualization and printing to scale will be stressed. Prior AutoCAD training or experience is strongly recommended. Suggested preparation: Engineering 183 and 184. May be repeated. Advisory reading level: 3.

TEXT:

THE REQUIRED TEXTBOOK(S) MUST BE BROUGHT TO EVERY CLASS LECTURE/LAB (virtual or in person). The textbook(s) will be sold at our school bookstore in person and online.

METHOD OF PRESENTATION:

Lecture, Demonstration, Internet Methods, Email, Individual Instruction.

QUIZZES:

See syllabus for weekly schedule. QUIZZES CANNOT BE MADE-UP IF MISSED! Quizzes will be taken online using the Blackboard software. In order to take the quiz, you will need to be at the computer on time so that you can login to Blackboard using your id and password. The online quiz will be open book and will be available for 5 minutes from the time you begin. Be sure to do required reading before you come to class so that you will be prepared. You may also take this quiz from home on your personal computer. **However, the quiz will only be available during the time it is given in class** unless you are notified otherwise by email or announcement during class and posted to Bb announcements.

The Computer Conduct quiz is required but no points are given for it. ALL enrolled students must read the Computer Conduct PDF file and take the Computer Conduct quiz since SAC computers will be used for your Final Exam. Select the Course Information button to locate Quiz items.

ASSIGNMENT REVIEW AND EVALUATION:

During the course there will be weekly evaluation of your lab progress, quizzes most weeks, as well as the Midterm Review & Exam and Final Review & Exam. The Midterm Review & Exam and Final Review & Exam will be an individual review of your work by the instructor. At this time you will be expected to provide assignments that are zipped to a single file and sent via digital dropbox and to demonstrate commands and features to show your skill and knowledge. Unless prior arrangements have been made, work will not be accepted late. If accepted, late work may be assessed a 20% grade reduction penalty. The Midterm Review & Exam and Final Review & Exam are together worth 60% of your overall grade so it is very important to be ready. Students may create weekly assignments outside of the CAD Lab. All students are advised that the instructor is available to assist during scheduled class time or by appointment or during office hours.

GRADING FACTORS/GRADING SCALE.

At end of semester the total points earned will determine your grade.

A = 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

F = 0-59%

Midterm 15%, Final Exam 15%, Assignment Evaluation/Reviews 40%; Quizzes 20%. Weekly Progress/Participation = 10%.

CHEATING/COPYING.

While cooperative effort, consultation, and discussion are effective (and strongly encouraged) ways in which to learn, you are expected to **complete your own work**. Submitting copied or duplicated work of another student is considered cheating. Cheating may result in an "F" grade in the class and possible suspension from the college. Allowing another student to copy your work may result in the same penalty for you. Do not let anyone copy your work!

ATTENDANCE POLICY:

You are responsible for placing your name on the attendance form and initialing for each day of attendance. You are expected to regularly attend all lecture and lab sessions and submit assignments. **IT IS MOST IMPORTANT THE STUDENT PLACE A HIGH PRIORITY ON ATTENDING EVERY CLASS SESSION!** If you discontinue coming to class it is your responsibility to drop the course. Failure to do this may result in an "F" grade for the course. Students are responsible for complying with the "add/drop" procedures and for processing add/drop forms with the Admissions office before the deadlines.

LAB HOURS/ARRANGED HOURS:

This course includes lab hours. The class workload for courses at SAC is generally intended to require 48 hours of work for each unit of credit, so 3 units equals a total of 144 hours of work. Some of these hours are scheduled in class lecture and lab. The remaining hours are your responsibility. Plan your time accordingly. The CAD lab will be open each week. The [Lab Schedule](#) is posted on the [Engineering Department](#) website and also available in the CAD Lab, at A-225 on campus. Students are responsible for reading and complying with all aspects of the "Standards of Conduct For computer Classrooms and Computer Labs". The Computer Conduct Information is the first link on the Course Information page of this class and must be read and agreed to by all students who use SAC computers. The quiz posted for Computer Conduct allows you to select true to demonstrate your agreement with SAC rules. *You cannot use SAC computers if you don't read the form and select true when you take the quiz.*

COMPUTER SOFTWARE USED:

We will briefly review multiple AEC applications to compare them, but the focus of instruction and drawing assignments will be using Revit Architecture application. Additional versions of Revit will be reviewed in some weeks of the course, but no drawing work will be required using Revit MEP or Revit Structure. Detail about system requirements can be found at <http://www.Autodesk.com>. This course will utilize some software for viewing Adobe Acrobat, Video and PowerPoint files, for which you may need to download additional files if you are working from your home. The links for files are listed under the External Links Button. Viewers used to see or work with files posted here are Adobe Acrobat Reader, PowerPoint viewer, Quicktime 6 Player, Winzip and similar file compression software. Suggested preparation for knowledge of CAD includes ENG 183, & 184 or the equivalent prior to taking this class. Engineering 186 would also be very helpful preparation. **All software for this course is already installed on the SAC CAD Lab computers in room A225.**

MINIMUM STUDENT MATERIALS:

This class requires the textbook, software previously explained, access to the internet, an email account, and a reasonably updated computer. The SAC CAD Lab computers in room A225 have everything needed for this course and are available per the posted schedule on the department website and at the CAD Lab. See Autodesk.com for system details if you plan to purchase educational version software. **Drawing scales for architectural, civil engineering, and metric scales will be useful or a combination scale having all three types of scales could be used.** Floppy diskettes are not recommended for 3D work. You may store and send drawings via the course website digital dropbox (multiple files must be zipped and sent as one compressed file). Zip disk, USB Flash Drive, or another large format storage method is highly recommended. Always back up work to prevent data loss. The drop box and another storage method are recommended. 3-ring binder, notepaper and pencils/pens are useful as for any class. **The SAC CAD Lab computers in room A225 have all needed software and are available per the posted schedule. Printing the PPT files or help files is not allowed at our CAD Lab.** Save them digitally or view them online. They are large many page long files. 3-ring binder, notepaper, pencils/pens, are helpful to keep organized notes as for any class.

GETTING OFF TO A GOOD START:

It is important to get off to a good start, so collect and organize everything that you need a.s.a.p. Santa Ana College is eager to accommodate students with disabilities. It is the responsibility of the student to inform the instructor of any special needs in a timely manner. Recommendations for the serious student follow:

1. Get the text the first class meeting. The initial lecture will refer to information and assignments in the text.
2. Work your way through the 'Orientation' on the computers. There is important information you need to know for our class and the lab that may not be covered in lecture.
3. Plan to attend class regularly and on time. Quizzes, lectures, and demonstration will begin on time. Update your current email address to Bb using Tools, Personal Information, Edit Personal Information. Replace the default email address with your correct email address. See the instructor or lab tech if you need help.
4. Find a "Learning Partner" for mutual help in case of missed lectures or assignments. The instructor cannot be expected to bring you up-to-date when you miss a lecture, demonstration, or assignment. If your "partner" is absent one session, be sure to take extra-good notes!
5. Be sure to review announcements in Blackboard at the start of each week and on class meeting days. Minor changes or updates may be made, which is another reason that printing web posted information is NOT advised. **Printing the PPT lectures or Architectural Desktop help files is not allowed and may be cause for dismissal from use of the CAD Lab. These are large files, and are best viewed in the viewing software which allows search features, and other benefits.**
6. After consulting your study buddy if you still have a question about something email me for help!

01/24/2010 19:13

by Susan Sherod