

SANTA ANA COLLEGE , Engineering 183 - AutoCAD I, Computer Aided Drafting 3 units credit. Section 28078, 02/08/10 - 06/02/10

Spring 2010, Class Schedule: weekly 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. Final exam date/time TBA.

Instructor: Susan Sherod

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

Textbook: AutoCAD 2010: A Problem Solving Approach, by Sham Tickoo, publisher, Delmar, Cengage Learning

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 FOR EACH WEEK. NOTE: Bb uses your WebAdvisor ID and password.**

Unit I. Introduction to the class and AutoCAD & Getting Started With AutoCAD

Week 1, Week 2 - Feb. 8 & 15 **note: campus closed Feb. 15 Holiday, Bb available 24/7**

Lecture 1 Screen layout & Components, Dashboard, Working with Files

Lecture 2 Sheet Sets, Workspace, Help (resources), Introduction to Cartesian Coordinates, Line, Circle, DDE, Esc, Cancel, Undo/Redo, Erase and Basic Object Selection

See Bb Assignments for Reading and Problems every week! **Warning - Students who do not complete Quiz 1 on time will be dropped.**

QUIZ 1, Test 1 - drawing assignment must be uploaded to assignments in .zip file

Unit II. Continued Review, Basic Display Commands, Basic Draw Commands & Starting with Advanced Sketching

Week 3, 4 - Feb. 22, Mar. 1

Lecture 3 Review and continue with Cartesian Coordinates, **Basic** Display Commands, basics for: Units, Limits, Plot, Intro. to Options dialogue

Lecture 4 Basic drawing commands and options - arc, ellipse, rectangle, polygon, polyline, point, pdmode, xline, xray

See Bb Assignments for Reading and Problems every week!

QUIZ 2, Test 2 - drawing assignment must be uploaded to assignments in .zip file

Unit III. Working with Drawing Aids, Using Layers & Setting Layer Properties, Editing Sketched Objects, Part I

Week 5, 6 - Mar 8, 15

Lecture 5 Layers, Ltscale, Changing object properties, using Grid, screen Snap, Ortho, Polar, Osnap, Running Osnap, Otrack,

Lecture 6 Editing commands: Move, Copy, Offset, Fillet, Chamfer, Trim, Extend, Stretch, Rotate, Array, Mirror, Break, Scale, Lengthen

See **Bb Assignments** for Reading and Problems every week!

QUIZ 3, Test 3 - drawing assignment must be uploaded to assignments in .zip file

Unit IV. Editing Sketched Objects Part II, Tools for Accuracy including Inquiry, Managing Layers and Properties

Week 7, 8 - Mar. 22, 29

Lecture 7 Grips and edits with grips, Pointstyles, PDmode, ID, Dist, List, Divide, Measure, Areas, Hyperlinks, Display Commands, Change Properties, MatchProp, Quick Select, Create/Save/Restore Views, Aerial Views

See **Bb Assignments** for Reading and Problems every week!

QUIZ 4, Test 4 - drawing assignment must be uploaded to assignments in .zip file

Lecture 8 **Midterm Review of Recommended drawings/MIDTERM EXAM online - note: campus closed Mar. 31 Holiday, Bb available 24/7**

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

Unit V. More View Commands, Creating Text & Tables

Week 9, 10 - Apr. 12, 19

Lecture 9 Midterm results reviewed, Annotative Objects, Text Styles, Text, Mtext, DDEdit, Spellchecking, Find and Replace

Lecture 10 Text Symbols, Table Styles, Creating and Using Tables, Title Sheet Table in a Sheet Set

See **Bb Assignments** for Reading and Problems every week!

QUIZ 5, Test 5 - drawing assignment must be uploaded to assignments in .zip file

Unit VI. Basic Dimensioning

Week 11, 12 - Apr. 26, May 3

Lecture 11 Dimension Geometry Terms, Basic Associative Dimensions, Basic Dimension Style Settings

Lecture 12 Continued dimensioning topics for placement, style overrides, style "families"

See **Bb Assignments** for Reading and Problems every week!

QUIZ 6, Test 6 - drawing assignment must be uploaded to assignments in .zip file

Unit VII. Geometric Dimensioning & Tolerances & Begin Editing Dimensions

Week 13, 14 - May 10, 17

Lecture 13 Leaders/Multileaders, Tolerancing, Feature Control Frames Basics

Lecture 14 Editing Dimensions, DDEdit, DimTedit, DimEdit, Properties editing for dimensions

See Bb Assignments for Reading and Problems every week!

QUIZ 7, Test 7 - drawing assignment must be uploaded to assignments in .zip file

Unit VIII. Continue Editing Dimensions & Styles, Semester Review

Week 15 - May 24

Lecture 15 - Dimension System Variables, Continued application with problems using dimensions, Semester Review

See Bb Assignments for Reading and Problems every week!

QUIZ 8

Week 16 - May 31 Holiday Campus Closed. Bb will be available 24/7 as usual.

Lecture 16 - Test 8 and Final Review/Final Exam - in person in A225 date/time TBA. Photo ID required for entry. Final Exams are password protected. Passwords are given in person at the exam. You are advised to arrive a few minutes early.

It is the student's responsibility to send drawings via the correct Assignment Links for all work for the class. There are extra links to send in resubmitted or additional work at middle of term and end of term, plus two supplemental Assignment links, as additional locations where you can upload late work.

Review and complete ALL weeks' drawings for submission to assignments by 06-04-10, midnight.

If you plan to become knowledgeable about Engineering 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.

Best wishes to each of you for a successful semester in Engineering 183!

ENGINEERING 183 OVERVIEW, COURSE INFORMATION

CLASS DESCRIPTION:

A first course in computer drafting using AutoCAD software. Topics include: CAD concepts, Cartesian Coordinates and data entry methods, display commands, file management, units of measure and drawing setup, object types, object creation, object selection methods, advanced editing, layers, text, tables, dimensioning. Advisory reading level: 3.

TEXT:

THE TEXT MUST BE USED FOR EVERY CLASS whether in person or a "VIRTUAL" SESSION. It is the main focus of instruction and practice.

METHOD OF PRESENTATION:

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

ASSESSMENTS:

Scheduled per the week noted in the class syllabus. Will be available beginning Monday at 12 a.m. of the week and will time off the following Monday at 12 a.m. **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 login to Blackboard using your id and password. The online quiz will be open book and will be available on a timer, typically for 5 minutes **from the time you begin**. Be sure to do required reading and try lab work **before** you attempt a quiz so that you will be prepared. You may take a posted quiz at any computer with internet access and a java enabled current version of web browser during the week it is posted. However, be sure to use the practice quiz to be sure you can take quizzes from your remote computer if you do not use a computer at the SAC campus to take your quizzes. Tests will become available via an Assignment link on Monday at 12 a.m. in weeks they are given, and will time off the following Monday. **TESTS CANNOT BE MADE-UP IF MISSED!** Be sure to submit Drawing Test problems to their appropriate Assignment link.

ASSIGNMENT REVIEW AND EVALUATION:

During the course there will be weekly evaluation of your progress as well as the midterm and final review/evaluation. The Final Exam during the last week of class, will be in person. Failure to pass the Final Exam will result in failure for this class, so it is very important to be ready for it. As part of the Final Exam you may be asked to display assignments and demonstrate commands and features as requested by the instructor, and to answer specific questions. Unless prior arrangements have been made, no work will be accepted late. **If accepted, late work may be assessed a 20% grade reduction penalty.** Students may create assignments at any computer that has AutoCAD and can save to a file format compatible with AutoCAD 2010.

GRADING FACTORS/GRADING SCALE.

Quizzes =30%, Test Drawing Assignments = 40%, Midterm Review 5%, Exam I = 10%, Exam II = 10%. Final Review = 5%. **A passing grade on the IN PERSON Final Exam is required to pass this course. Photo ID is required for the Final Exam.**

A 100-90%

B 89-80%

C 79-70%

D 69-60%

F 0-59%

Be sure to check Blackboard to review your grades. Extra credit opportunities may be offered during the semester. Regular assignments must be done before extra credit points will be given.

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 your own attendance. You are expected to regularly attend all lecture and lab sessions. Weekly submission of quizzes or exams and assignments show your participation. Students who do not participate can be dropped for excessive absence. In a compressed course **IT IS MOST IMPORTANT THE STUDENT PLACE A HIGH PRIORITY ON PARTICIPATION IN CLASS!** If

you have discontinued participation in the course 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. Be sure to check at the first class meeting regarding the session drop deadline.

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**. These hours are scheduled in virtual or in person class lecture and lab assignments. You must plan to do homework such as textbook reading, and study/review as well. 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.*

MINIMUM STUDENT MATERIALS:

Textbooks. Removable storage media such as USB flash drive or DVD-R are recommended for back up of your work. 3-ring binder, notepaper and pencils/pens. Download of the free student version of AutoCAD is recommended for students' use on their own computer systems, provided the student's system is adequate to run it. Verify system requirements for AutoCAD at <http://www.autodesk.com>.

GETTING OFF TO A GOOD START:

It is so important to get off to a good start. 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 before the first class meeting. The initial lecture will refer to information and assignments in the text.
2. Plan to attend class regularly. Quizzes, lectures, and demonstration will build upon one another, so it is important to do work sequentially..
3. Find a "Learning Partner" for mutual help. The instructor cannot be expected to bring you up-to-date with every detail if you miss announcements, emailed directions or corrections, fall behind with lectures, lab demonstrations, or assignments. If you and your study partner cannot mutually resolve questions, and need additional information, check the course FAQ first, and if still uncertain, email the instructor the details of your questions.
4. Be sure to review your email and the announcements in Blackboard regularly. For 6 or 8 week sessions, review daily.

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By Susan Sherod