HOUSTON COMMUNITY COLLEGE SYSTEM
NW_ALIEF CAMPUS

ENGR 1204 Engineering Graphics 1 CRN: 44704 Fall 2014_ SS
Time: 10:00 am- 2:00 pm: Th (12weeks Semester course)
Lecture (room B-122) at Alief Campus
Course Semester Credit Hours: 2 (2 lecture, 1 lab); **MATH 1314-** College Algebra
Instructor: Olatunde (Tunde) Amosu; Phone: 832-359-8414;
email address: olatunde.amosu@hccs.edu
Office Hour: before and after class on MW or by appointment
Textbooks: **AutoCad and its Applications – Basic, 2014**- **21st** edition. By Terence M. Shumaker, David A. Madsen, David P. Madsen. Goodheart – Wilcox Publishing Company **(ISBN 978-1-61960-446-9)**.
Link to Companion Site: http://www.g-wlearning.com
Link to Autocard site: www.autodesk.com/education/free-software/autocad

- **Choose the version**
- **Autocad2014**

Course Description: ACGM or WECM

Through a combination of lecture, hands-on exercises, home works assignments, drawing problems and examinations, this course introduces the student to computer-aided design/drafting with the AutoCAD software. The AutoCAD topics covered in this course include an introduction to AutoCAD features, starting and setting up drawings, point coordinate entry methods, creation of 2D objects, layer management, line types and colors, selection sets, object snap modes, editing geometry, display control and drawing inquiry methods.

Course Objectives

After completing this course, the student will be able to do the following:

1. Use AutoCAD's precision drawing tools and methods to construct accurate 2D drawings.
2. Create and manage drawing layers, and control object colors and line types
3. Create, edit and modify text styles and text objects in AutoCAD.
4. Control the drawing display and utilize named drawing views.
5. Construct and edit polylines, multilines and splines.
6. Creating shapes and symbols
7. Special editing operations that increase productivity
8. Drawing geometric shapes and constructions.

Attendance policy

Students are encouraged to attend all classes.

Attendance: HCCS Attendance Policy is stated in the ***2007-2008*** Student Handbook ***page 2*** as follows*: "You are expected to attend all lecture classes and labs regularly. You are also responsible for materials covered during your absences. Instructors may be willing to consult with you for make-up assignments, but it is your responsibility to contact the instructor. Class attendance is checked daily. Although it is your responsibility to drop a course for nonattendance, the instructor has the authority to drop you for excessive absences. You may be dropped from a course after accumulating absences in excess of 12.5 percent of the total hours of instruction (lecture and lab). For example:*

• For a three credit-hour lecture class meeting three hours per week (48 hours of instruction), you can be dropped after six hours of absence.

• For a four credit-hour lecture/lab course meeting six hours per week (96 hours of instruction), you can be dropped after 12 hours of absence."

If circumstances significantly prevent you from attending classes, please inform the instructor.
http://www.hccs.edu/hcc/System%20Home/Departments/Student_Handbook/academic_info.pdf

If circumstances significantly prevent you from attending classes, please inform me. I realize that sometimes outside circumstances can interfere with school and I will try to be as accommodating as possible, but please be aware of the attendance policy.

Students with Disabilities

HCCS is committed to compliance with the American with Disabilities Act and the Rehabilitation Act of 1973 (section 504). "Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing etc.) who needs to arrange reasonable accommodation must contact the appropriate HCC Disability Support Service (DSS) Counselor at the beginning of each semester. Instructors are authorized to provide only the HCC DSSO approved accommodations but must do so in a timely manner. Students who are requesting special testing accommodations must first contact the appropriate (most convenient) DSS office for assistance each semester.

Disability Support Services Offices:

System: 713.718.5165

Central: 713.718.6164 – also for Deaf and Hard of Hearing Services and Students

Outside of the HCC District service areas.

Northwest: 713.718.5422 Northeast: 713.718.8420

Southeast: 713.718.7218 Southwest: 713.718.7909

The student must request an accommodation before the start of each semester (as applicable) and should indicate to the DSS counselor when he/she is enrolled in a class. After student accommodation letters have been approved by the DSS office an email confirmation informing them of the Instructional Support Specialist assigned to their professor and that the accommodation letter has been processed. Upon consultation and documentation, you will be provided with reasonable accommodations and/ or modifications.

Also visit the ADA web site at: http://www.hccs.edu/students/disability/index.htm. Faculty Handbook / faculty Orientation is also available at
http://www.hccs.edu/sudnts/disability/faculty.htm

Academic Honesty
Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. A student who submits the work of another student as her/his own deliberately fails to properly credit words or ideas borrow from another source is guilty of plagiarism. A student who takes an exam for another student, copies answer from another student's exam, copies drawings in any manner, or engages in any other similar conduct aimed at making false representation with respect to student's academic performance is guilty of cheating. Disciplinary proceedings may be initiated by the college system against a student accused of scholastic dishonesty. Penalties can include a grade of '0' or 'F' on the particular assignment, failure in the course, academic probation or even dismissal from the college. Scholastic dishonesty includes but is not limited to cheating on a test, plagiarism and collusion.

Administrative and Student Withdrawals
For 12 week Fall '14 classes, this date is October 31st (4:30pm). In order to withdraw from a class, students MUST request to be withdrawn by notifying the professor. This must be done PRIOR to the withdrawal deadline to receive a "W" grade. If a student does not request to withdraw before the deadline, the student must be assigned a letter grade that is earned by the end of the semester (A, B, C, D, and F). I urge any student who is contemplating of withdrawing from the class to see me first. You may be doing better than you think. Either way, I want to be accessible and supportive. I don't believe in "weed out" classes, and I consider you to be much more than just a name or number. If you need assistance, do not hesitate to contact me (my phone number and e-mail address are listed above). I am here to help you.

Course Withdrawals - First Time Freshman Students - Fall 2007 and Later
Under Section 51.907 of the Texas Education Code "an institution of higher education may not permit a student to drop more than six courses, including any course a transfer student has dropped at another institution of higher education." This statute was enacted by the State of Texas in the Spring 2007 and applies to students who enroll in a public institution of higher education as a first - time freshman in fall 2007 or later. Any course that a student drops is counted toward the six - course limit if "(1) the student was able to drop the course without receiving a grade or incurring an academic penalty; (2) the student's transcript indicates or will indicate that the student was enrolled in the course; and (3) the student is not dropping the course in order to withdraw from the institution." Policies and procedures for implementation of this statute are being developed and will be published as soon as they are available.
HCC students affected by this statute that have attended or plan to attend another institution of higher education should become familiar with that institution's policies on dropping courses.
Web link to this information

Exercises

There will be exercises assigned after each class. In general, student who fail to do these assigned exercises do not do well in the course. All the exercises will be graded for credit. Students are strongly encouraged to attempt all exercises. The effort spent will enable you to perform better in tests and exams. All your exercises must be turned in as an attachment on Eagle On Line and also the hard copy printed out must be turned in.

Maximum of 10 points deduction for each exercise turn in late after the due date. All exercises should be individual effort, no copy from another students, but students can assist each other.

Exams and Make-up Policy

Examinations consist of three regular exams and a compulsory final will be administered during the semester. Make-up exams **will not** be given, so make every effort to take the exams on their scheduled dates.

Please note: 1) All students are required to take the final (no student can be exempted).

2) After the withdrawal date, no "W" can be given, and you **must** receive a regular grade (A-F) in the course.

Grading Policy: The final grade is based on the score out of 100% that the student accumulated from the three exams, Exercises and the final exam. Below is the weighting of the categories:

60% (20% for each Exam => 3x 20%)
15% Home works _Exercises
25% Final exam
100% Total

The *overall score* is based on the following:

Overall score = 0.60 (Average of three regular exams) + 0.15 (Homework) + 0.25 (Final Exams)

The course grade is then obtained from the overall score:

Final Average	90 – 100	80 – 89	70 – 79	60 – 69	< 60
Letter Grade	A	B	C	D	F

Tentative outline for ENGR 1204

NB. This outline is subject to change as the semester progresses

Chap 1-**INTRODUCTION TO AutoCAD**

1. The AutoCAD software structure
2 Dialog boxes, selecting commands,
3. Starting & exiting AutoCAD

Chap 2_ **Drawings and Templates**.

1. Starting & opening a drawing, drawing file names,
2. Working with multiple drawings, setting up a drawing template, working with grid and snap modes and changing units.

Commands: QNEW, SAVEAS, QSAVE, OPEN, CLOSE, CLOSEALL, DWGPROPS, LIMITS, UNITS

Chap 3_**Introduction to Drawing and Editing**

Point entry methods, drawing lines, code display, editing functions, dynamic input, and undoing the effects of commands, redoing undone operations

Commands: Line, GRID, DSETTINGS, SNAP, ORTHO, ERASE, OOPS, UNDO, REDO.

Chap 4_ **Basic Objects Commands**.

Drawing circles, arcs, ellipses, polygons, rectangles, polylines, splines and donuts. Drawing rectangles with chamfered corners and rounded corners

Commands: CIRCLES, ARC, ELLIPSE, PLINE, POLYGON, DONUT, SPLINE

TEST 01 -Thursday, in class test

Chap 5_**Line Standards and Layers Line**

Standards, drawing objects on separate layers, Creating & managing layers, assigning line types and line weights, changing object properties, using Design Center.

Commands: Layers, LINETYPE, LINEWEIGHT, LAYERSTATE, ADCENTER

Chap 6_**View Tools & Basic Plotting**

Using commands transparently, real time zooming and panning, using the navigation bar and navigation wheels; creating views; model space and tiled viewports; making a print.

Commands: Zoom, PAN, REGEN, REGENALL, VIEW POINTS, NAVBAR, NAVSWHEEL, NAVCUBE, ISOLATEOBJECTS, VIEW< VPORTS

Chap 7_ **Object Snap & AutoTrack**

Modes, using Object Snap, AutoTrack, temporary tracking

Chapter 8_ **Construction Tools and Multiview Drawings**

Parallel Offsets, Drawing Points and using construction lines to assist in creating multiview drawings & auxiliary views

Commands: OFFSET, POINT, DDPTYPE, DIVIDE, MEASRE, XLINE, RAY

TEST 02 -Thursday, in class test

Chapter 9_ **Text Styles and Multiline Text**

Text Standards and Composition, annotative styles, drawing scale factors, developing and using text styles drawing scale factors, developing and using text styles, forming columns; placing multiple-line text on a drawing

Commands: SCALELISTEDIT, STYLE, RENAME, MTEXT

Chapter 10_**Single-Line Text and Additional Text Tools**

Placing single-line text on a drawing, creating special text characters, inserting fields and checking spelling.

Commands: TEXT, FILEDS, UPDATEFILED, SPELL, FIND, SCALETEXT, JUSTIFYTEXT, PROPERTIES

Chapter 11_**Modifying Objects**

Drawing chamfers and fillets using editing commands joining, scaling and exploding objects.

Commands: FILLET, CHAMFER, BREAK, JOIN, EXTEND, TRIM, STRETCH, LENGHTEN, SCALE, EXPLODE

Chapter 12_ **Arranging and Patterning Objects**

Moving & copying objects, creating mirror images, aligning objects, arraying objects.

Commands: MOVE, ROTATE, ALIGN, COPY, MIRROR, REVERSE, ARRAY

TEST 03 -Thursday, in class test

Chapter 13_ **Grips, Properties and Additional Selection Techniques**

Using grips to edit objects, using the Properties palette, copying objects between drawings, matching properties, selection techniques.

Commands: PROPERTIES, MATCHPROP, ADDSELECTED, ADDSIMILAR, QSELECT

Chapter 14_**Polyline and Spline Editing Tools**

Editing polylines and splines, creating a polyline boundary.

Commands: BOUNDARY, PEDIT, SPLINEDIT

Chapter 15_ **Obtaining Drawing Information**

Obtaining information about the drawing, displaying information with fields, using the AutoCAD calculators to make mathematical calculations on numeric values.

Commands: MEASUREGEOM, LIST, DBLIST, TIME, STATUS, QUICKCALC

Chapter 16_**Dimension Standards and Styles**.

Drawing scale and dimensions, creating and using dimension styles, inserting conventional breaks, dimensioning practices and standards

Commands: SCALELISTEDIT, DIMSTYLE

Chapter 17_ **Linear and Angular Dimensioning**

Dimensioning lines and angles, drawing datum and Chain dimensions with QDIM

Commands: DIMLINEAR, DIMALIGNED, DIMJOGLINE, DIMANGULAR, DIMBASELINE, DIMCONTINUE, QDIM

FINAL EXAM – DEC 4– Thusday, in class test

Success in this course depends solely on the individual student

The following are strongly recommended for each student:

- Read and understand all elements of the Syllabus, Distance Education and Student handbooks.
- Give your professor evening (after 9pm or week-ends) phone calls and e-mail.
- Read and comprehend the required chapters in the textbook prior to the exams.
- Successfully complete all requirements of this course as outlined in this document.
- Contact your professor if you have any questions regarding any element of the course you do not understand.
- HINT: Work hard from the beginning of the semester rather than playing a "catch-up game during the second half of the semester.
- Plan to attend all class review sessions to clarify your concerns about the course content/tests.

Important dates

August 24:	Last day for Drop/Add/Swap/Registration Ends (Online only)
August 25:	Regular classes' begin- Drop/Add/Swap
September 1:	Labor Day Holiday_ Offices Closed
September 8:	Official Date of Record
September 20:	Second Start classes' begin
October 31:	Last day for student withdrawals- 4:30pm
November 27 – 30:	Thanksgiving Holiday_ Offices Closed
December 7:	Instruction ends
Dec. 8 - 14:	Final exam begins on HCCS regular class schedule
December 14:	Semester Ends
December 15:	Grades Due by 12:00 noon
December 19:	Grades available to students