COLLEGE OF ARTS AND SCIENCES
IT 139.01 Introduction to Computer Aided Drafting Course Syllabus

DEPARTMENT: Agricultural Sciences – Technology Program
COURSE NUMBER AND TITLE: IT 139.01 Introduction to Computer Aided Drafting
SEMESTER: Fall 2007
CREDIT HOURS: 3
LECTURE LOCATION / TIME: Farrington Building 2, Room 220, Monday 5:00 – 6:00
LAB LOCATION /TIME: Farrington Building 2, Room 220, Monday 6:00 – 8:00

INSTRUCTOR: Rachel M. Baxter, MA

OFFICE: Farrington, Room 224
                             P.O. Box 2266/SHSU
                             Office phone & voicemail: 936.294.1198
                             Cell Phone: 936.355.0139
                             Email: rmb001@shsu.edu or rbaxter@conroeisd.net
                             Web: http://info.conroeisd.net/~rbaxter

OFFICE HOURS: Monday: 4:00-5:00
                             Tuesday: 4:00-5:00
                             Arranged by appointment

TEXTBOOKS: Shih, Randy H. <u>AutoCAD 2007 Tutorial First Level: 2D Fundamentals</u>. Schroff Development Corporation. Mission: KS. 2006 *(approx 50.00)*
                             ISBN: 1-58503-284-0

SUPPLIES: 1"-2" three ring notebook and a USB storage drive.

COURSE OBJECTIVES:
This course is intended to provide the student with an understanding of Computer-Aided Drafting principles. Students will utilize the software command structure of the most predominately used 2D CAD program, namely AutoCAD ***(ACAD)***, to complete a number of typical and practical drafting application exercises.

COURSE FORMAT:
This course will be a combination of lecture, demonstrations, student inquiry, and in-class problem solving. Each student will be expected to demonstrate the correct use of AutoCAD commands. The students will be required to complete a series of drawing exercises/projects and/or tests that will reflect their knowledge of the stated objectives.

COURSE CONTENT:

Week #1:   **Objective:**   Welcome, Introduction, Syllabus, etc…
                Book: Introduction
                Quick Quiz: None, complete and turn in **1A** -Info Sheet *(20 pts)*
          Assignment (s) #1B *(100 pts):*   History of CAD "Internet Scavenger Hunt"
- Use the book and Internet as research. Write a one-paragraph synopsis about the history of CAD (Computer Aided Drafting) and it's affect(s) on industry.
- Find a company that used a 2D CAD program (not necessarily ACAD). Print out proof of your research and answer the following questions.
    o What is the name of the company and where are they located?
    o What type of industry is this company? (Steel, Construction, Interior Design, etc..)
    o What is the name of the software they use?
    o What do they use this CAD software for?"

Week #2:   **Objective:**   Fundamentals of drawing and coordinate systems
                Book: Introduction and Chapter #1
                Quick Quiz: 1 *(20 pts)*
                Assignment (s) #2ABCD:
- 2A *(20 pts)*-   By hand draw given problem using the three main type of coordinate systems.
- 2B *(30 pts)*-   By hand draw and plot out your own problem as assigned using the three main type of coordinate systems.
- 2C *(20 pts)*-   Draw using ACAD the books Guide Plate
- 2D *(30 pts)*-   Draw using ACAD your assignment 2B.

Week #3:   **Objective:**   Basics of drawing commands and object construction.
                Book: Chapter #2
                Quick Quiz: 2 *(20 pts)*
                Assignment (s) #3ABCD:
- 3A *(15 pts)*-   Draw using ACAD Lines & Rectangles
- 3B *(15 pts)*-   Draw using ACAD Arcs, Circles, & Ellipses
- 3C *(30 pts)*-   Draw using ACAD the "Smile"
- 3D *(40 pts)*-   Draw using ACAD the books Rocker Arm

Week #4:   **Objective:**   Geometric construction and editing tools.
                Book: Chapter #3
                Quick Quiz: 3 *(20 pts)*
                Assignment (s) #4AB:
- 4A*(50 pts)*-   Draw using ACAD the books Gasket
- 4B*(50 pts)*-   Draw using ACAD problem given

Week #5:   **Objective:**   Exam #1 – Written on Black Board **(100 pts)**
                Book: Chapters covered to date

Week #6:   **Objective:**   Title block, layers, templates, and printing.
                      Book: Chapter #7
                      Quick Quiz: 4 *(20 pts)*
                      Assignment (s) #5AB:
- Draw using ACAD the title block assigned, NOT the books
- 5A *(50 pts)*-   Draw using ACAD the books Geneva Cam
- 5B *(50 pts)*-   Draw using ACAD problem given

Week #7:   **Objective:**   Floor plans, object properties, and organization.
                      Book: Chapter #4
                      Quick Quiz: 5 *(20 pts)*
                      Assignment (s) #6AB:
- 6A *(50 pts)*-   Draw using ACAD the books Floor Plan
- 6B *(50 pts)*-   Draw using ACAD problem given

Week #8:   **Objective:**   Midterm Exam #2
                            – Written on Black Board **(100 pts)**
                            – Practical in Lab **(100 pts)**
                      Book: Chapters covered to date

Week #9:   **Objective:**   Orthographic views and dimensioning.
                      Book: Chapter #5 and #6
                      Quick Quiz: 6 *(20 pts)*
                      Assignment (s) #7ABC:
- 7A *(30 pts)*-   Draw using ACAD the books Locator
- 7B *(35 pts)*-   Draw and dimension using ACAD the books Bracket
- 7C *(35 pts)*-   Draw and dimension using ACAD problem given

Week #10:   **Objective:**   Auxiliary views and GRIPS.
                      Book: Chapter #8
                      Quick Quiz: 7 *(20 pts)*
                      Assignment (s) #8AB:
- 8A *(50 pts)*-   Draw using and dimension ACAD the books V-Block
- 8B *(50 pts)*-   Draw and dimension using ACAD problem given

Week #11:   **Objective:**   Section views.
                      Book: Chapter #9
                      Quick Quiz: 8 *(20 pts)*
                      Assignment (s) #9AB:
- 9A *(50 pts)*-   Draw and dimension using ACAD the books Bearing
- 9B *(50 pts)*-   Draw and dimension using ACAD problem given

Week #12:   **Objective:**   Exam #3 – Written on Black Board **(100 pts)**
                      Book: Chapters covered to date

Week #13:   **Objective:**   Assembly drawings and blocks.
                 Book: Chapter #10
                 Quick Quiz: 9 *(20 pts)*
                 Assignment (s) #10A:
- 10A *(100 pts)-*   Draw and dimension using ACAD the books Final Assembly

Week #14:   **Objective:**   Putting it all together.
                 Book: All Chapters
                 Quick Quiz: 10 *(20 pts)*
                 Assignment (s) #11AB:
- 11A *(50 pts)-*   Draw and dimension using ACAD the problem given
- 11B *(50 pts)-*   Draw and dimension using ACAD the problem given

Week #15:   **Objective:**   Presentations and portfolios due.
                 Book: None
                 Quick Quiz: None
                 Assignment (s) #12AB:
- 12A *(100 pts)-*   Turn in portfolio
- 12B *(100 pts)-*   Give Presentation to classmates

Week #16:   **Objective:**   Final Exam #4
                     – Written on Black Board *(200 pts)*
                     – Practical in Lab *(200 pts)*
                 Book: All Chapters

PORTFOLIO:
- Must be in a 3 ring binder
- Must have a cover page rubric in the front
- Every drawing assignment that has been completed in this class. They should have been graded and are your responsibility to get out of the graded pile. Instructor will not pass them back out to you.
- Each week pick on drawing you did, complete a "Reflection" over this assignment, and attach it behind the drawing.
- See given Reflection example to help you with this process.
- See grading rubric for this portfolio for specific breakdown.
- Must be turned in on Week #15 and picked up during Final Exam time in week #16 or it will be thrown away or kept by our offices as example for future students. HIGHLY advised you get it as at end of your education and courses a Final Portfolio may be required and this is a part of it.

PRESENTATION:
- 2-5 minutes in length
- Demonstrate and explain to class how to do your favorite function, skill, etc.. using ACAD and data projector and/or presenter.
- Explain not only how to do it but why it is your favorite.
- See grading rubric for this portfolio for specific breakdown.

ATTENDANCE POLICY:

1.   Every student is expected to be present and **on time** for every class. You are tardy whether you come in late or leave early. Roll will take at the beginning of each class or lab session; if you are not in your seat and have completed the evenings Quick Quiz or test, you will be counted tardy   (three tardies will be counted as one absent). If you are late and miss the 4:30-5:20pm time frame for Quick Quiz, then you have missed those 20 points possible. ***Accumulate six (6) hours and your grade will drop by a letter, nine (9) hours and it drops by two (2) letters.*** Attendance will be taken based upon Quick Quiz and turned in work for the evening. In case you are absent, whether excused or unexcused, you are still responsible for the material covered.

NOTE: I take roll based upon turned in practical assignments for that night. So even if you don't complete all assignments, make sure you have completed and turned at least one of them. Class will end when you are done with the assignments and have turned them, or at 9:00pm whichever comes first.

Material and instructions will be disseminated one time only. If you are absent or late, the responsibility for obtaining handouts and information is incumbent on you. These will also be posted on Blackboard the day they are assigned. You would be wise to establish relationships with fellow students for assuring that you remain well informed and that you are adequately prepared for exams.

2.   Each student should be prepared for class/lab by having carefully read and studied all assigned textbook readings and/or handouts. Each project is to be done on an individual basis. You should expect to spend **a minimum of three to four hours per week** in lab. Drawings / Assignments turned in late will be penalized *ten points per day late*. ***Work will NOT be accepted for credit beyond one week of the due date.*** Absences <u>do not</u> exempt you from the responsibility of turning material in on time and they <u>do not</u> extend the due date of the assignment schedule.

3.   There will not be repeat exams, quizzes, or makeup assignments except for extenuating circumstances (Documented illness, family crisis, etc.) or by mutual agreement prior to the absences between the instructor and the student.

4.   If you have perfect attendance during this course you will have the option to be exempt from taking the final exam if you have earned enough **POINTS** to receive an A or B. (Documented and approved by instructor absences will not count against you.)

ASSIGNMENTS:
See the calendar provided listing tentative assignments and due dates (also located on Blackboard). All grades are posted on BB, it is YOUR responsibility to keep track of your points. If a grade is missing on BB you must let the teacher know immediately. Show the instructor the graded work so that it can be corrected.

GRADING:

1.   **Unit Exams -** 4 Major exams will be given during the semester, 2-Regular Exams on BB; 1-Midterm; and 1 - Final.   Tests will consist of written questions over each software application will consist of multiple choice, true false, completion, matching and/or software problem solving and practical timed performance problems using each software.

   Lab Assignments/Practical Problems –We will have a total of 10 ACAD assignments worth 100pts each. You will also complete the assignments: History of CAD, Portfolio, and Presentation worth 100 pts each. Each assignment will have a due date and should be completed during your scheduled lab period. Work is due at the beginning of the next class period. Late work will be penalized one letter grade for each day it's late, work more than one week late will receive a zero.   There will be 10 assignments worth 100 POINTS combined for that night's assignment.

NOTE: You will submit a paper print out for grading, an electronic copy in the BlackBoard "drop box" to insure academic honesty so that I can do random checks. Additional lab time is available per the open lab schedule posted.

3.   **Quick Quizzes – 10** You will have a short quiz (20 minutes maximum) on those weeks when a unit exam is not scheduled. The quiz will consist of 5-20 true-false, matching, or multiple choice questions over current reading and/or lab assignments for that night. There will be no makeup if you miss a quick quiz. Quiz will be available in BB from 4:30-5:20PM for that evening only! Lecture for that night will start at 5:20pm.

GRADING PLAN:

   Each lab assignment should be completed during the scheduled lab period.   Lab assignments are due at the beginning of the next regular class period. Late work will be penalized 10 points for each day it's late. Work more than one week late will receive a zero.

   Each student is expected to individually complete all drawing exercises for each of the units in this course. Penalties will be accessed for work, which is turned in late. Each student will also complete unit tests plus a comprehensive final exam. The final grade for the course will be based upon points earned as follows:

Drawing assignments	*(50%)*	=	1,300 Points Possible
Unit Exams and Final Exam	*(40%)*	=	800 Points Possible
Quick Quizzes	*(10%)*	=	220 Points Possible
Total		=	2,320 Points Possible

Please refer to the assignments point accumulation sheet for a break down.

A	=	2320 - 1920	*(400 pts)*
B	=	1919 - 1619	*(300 pts)*
C	=	1618 - 1418	*(200 pts)*
D	=	1417 - 1217	*(200 pts)*
F	=	1216 - 0	

ACADEMIC HONESTY:

The University expects all students to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action.

If students are found to be cheating or guilty of plagiarism (including copying a drawing): First time offense will result in the test or assignment being counted as a zero and (this applies to the person who copied and the person who willingly allowed or supplied the data to be copied). This is why an electronic version of your work must also be submitted in the BB "drop box" so that I may do random checks. If the student repeats the violation, the course grade will be assigned as 'F'.

CLASSROOM RULES AND CONDUCT:

The lab assistant and instructor will enforce laboratory safety rules for any safety violations. Each safety violation will cause the current lab assignment grade to be dropped by one (1) grade letter for each occurrence. Students who are especially disruptive may be reported to the Dean of Students for disciplinary action in accordance with university policy.

THE FOLLOWING ARE THE SAFETY RULES:
- Cellular telephones and pagers must be turned off before class begins. If your cell phone rings during class or lab time it will confiscated for 24 hours.
- **<u>Eating, drinking and tobacco products are not allowed in the computer labs at any time.</u>**
- No equipment may be removed from the laboratory.
- Talking at inappropriate times, sleeping, horseplay, pranks or other acts of mischief is prohibited.

STUDENT ABSENCES ON RELIGIOUS HOLY DAYS POLICY:

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). <u>This request must be made in the first fifteen days of the semester or the first seven days of a summer session in which the absence(s) will occur.</u> The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed.

DISABLED STUDENT POLICY:

It is the policy of Sam Houston State University that no otherwise qualified disabled individual shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any academic or Student Life program or activity. Disabled students may request help with academically related problems stemming from individual disabilities from their instructors, school/department chair, or by contacting the Chair of the Committee for Continuing Assistance for Disabled Students and Director of the Counseling Center, Lee Drain Annex, or by calling (936) 294-1720.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Counseling Center and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. **NOTE**: **no accommodation can be made until you register with the Counseling Center**

__No AutoCAD assignments will be accepted after 9:00 P.M. on week #14.__

__"The above schedule, policies, and assignments in this course are subject to change in the event of extenuating circumstances or by mutual agreement between the instructor and the students."__

Fall 2007 - Baxter