

ETE 1200 – COMPUTER ENGINEERING DRAFTING – SPRING 2009

Instructor:	Scott Greenhalgh	Class Room:	IS 008
Phone:	(435) 590-7333	Meeting Time:	T & Th 9:00-12:00
Office Hours:	By Appointment	Office Phone:	797-1796

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Text: French, Hesel. (2003), Mechanical Drawing Board and CAD Techniques
McGraw-Hill; Chicago.

Shih, Randy H. (2008), Parametric Modeling with Autodesk Inventor 2009
SDC Publications; Mission, Kansas.

Philosophy:

This course has been designed to give students background experience in drafting theory and applications through the medium of the Computer Aided Drafting environment. This course's objectives are designed to deliver to the student enough background to enable them to competently work with computer-aided graphics in an entry-level drafting/industry job.

As such, this course in Computer Aided Drafting is very intense. It will require consistent, applied effort, independent preparations and performances on a daily basis. To aid yourself in the acquisitions of important concepts and principles it is highly recommended that you complete all your readings punctually. The expectations for this three credit class will seem high to you as will the standards of acceptable performance, but bear in mind these expectations are reflective of your profession in the field. As in any real world environment your professional behavior (preparation) will also affect your ability to be successful. In an attempt to emulate real industrial/drafting models you will be expected to work in a team environment on more than one occasion and utilize creative thinking skills. Drafting, unlike mathematics, has room for more than one acceptable drawing to completely describe a problem. There is room for a personal flair to your drawing...however, certain drawing fundamentals MUST be followed and observed. Their lack of application can and will dramatically effect your grade. These principles will be expected on your drawings throughout the entire semester.

We will be drawing with Autodesk's AutoCAD software including their Inventor software. This particular package is a parametric design software that will allow 3D graphics to be generated quite efficiently.

Objective:

Successful completion of the course will provide students with the ability to accurately produce computer-aided drawings. The student is introduced to the AutoCAD computer aided drafting software produced by AutoDesk.

The drafting theory part of this course includes the application of sketching, alternate methods of multi-view projection (section views, removed views, and auxiliary views), advanced dimensioning, working drawings, descriptive geometry, architectural drawings, structural drafting and perhaps some welding drafting.

Goals:

Students will be able to:

1. Communicate ideas through sketching
 2. Create multi-view drawings
 3. Create auxiliary views of inclined planes
 4. Create appropriate section views of objects
 5. Dimension drawings using conventional practices
 6. Generate a complete and accurate set of working drawings
 7. Develop a fundamental understanding of parametric modeling software and its use in generating working drawings.
 8. Demonstrate various techniques employed in the use of computer-aided drafting
 9. Demonstrate creative thinking skills
 10. Demonstrate cooperative team working skills
 11. Demonstrate a working knowledge of ANSI Standards
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Methods:

Several methods will be utilized in the acquisition of the goals above, including but not limited to the following...

1. Study of the text and other relevant material to gain an appropriate understanding of material presented in lecture.
 2. Practice of skills learned by utilizing the lab outside of scheduled class times.
 3. Completion of all required assignments, each with specific objectives to be mastered.
 4. Instructor lead demonstrations and lectures.
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Course Activities:

1. Complete assigned readings and tests.
 2. Completion of assignments.
 3. Complete Portfolio of all drawings and homework
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Materials:

1. 100 or 250 MB Zip Disk or flash drive
 2. Scales- Combination Scale
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Attendance:

You will struggle if you do not attend; failure to do so can severely hurt your grade and is easily noticed upon assignment grading. Emergencies are understandable but in no way the norm.

Prerequisites:

None

Evaluation Method:

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| • AutoCAD Assignments (8@30pts each) | 24% |
| • Inventor Assignments (8@20pts each) | 16% |
| • Group Project (250pts) | 25% |
| • Exams (final 150 pts, midterm 100pts) | 25% |
| • Portfolio (100pts) | 10% |

A = 93+% up	A- = 90-93%
B+ = 87-89%	B = 83%-86%
B- = 80-82%	C+ = 77-79%
C = 73-76%	C- = 70-72%
D+ = 67-69%	D = 63-66%
D- = 60-62%	F = 59 or less

All Problems/Projects are due as outlined on the course calendar. There will be a penalty of 20% for late work.

Final Exam:

- Tuesday, April 28th at 9:30 a.m.
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Fees: \$15.00, utilized for plotting materials

CAD Lab:

Please leave your work areas clean and have consideration for other students at work. Keep talking levels low and show other instructors, TA's, Lab assistants, and fellow students courtesy. Remember to **check in using your card in the back of the lab**, even if you are arriving for class. Any drafting questions can also be directed towards these assistants, they are a valuable resource to you but choose to ask.

Special Needs:

If a student has a disability that will likely require some accommodation by the instructor, the student must contact the instructor and document the disability through the Disability Resource Center, preferably during the first week of course. Any requests for special considerations relating to attendance, pedagogy, taking of examinations, etc. must be discussed with and approved by the instructor. In cooperation with the Disability Resource Center, course materials can be provided in alternative formats, i.e. large print, audio, diskette, or Braille.