Morehead State University
ITCD 103--Computer Aided Design & Drafting I
Spring 2008

Course syllabus

Instructor:
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Office hours: Monday and Wednesday 1:00 pm – 2:00 pm, Tuesday and Thursday 3:00 pm – 4:00 pm, or by appointment
Lecture: Monday and Wednesday 9:10 am – 10:10 am
Lab: 1st batch (MW 10:20 am – 11:20 am) 2nd batch (MW 11:30 am – 12:30 pm)

Prerequisites:
None

Course description:
ITCD 103 - Computer Aided Design & Drafting I (2-2-3); I, II.
The study of the principles and techniques of communicating ideas, designing, and drafting of 2D and 3D objects. Basic dimensioning and tolerancing are included.

Course Goals:
1. To enhance potential teachers to teach Computer Aided Design (CAD) in the public schools.
2. To enhance the preparation of students for positions as Designer/Drafters
3. To act as a service course for other programs where students desire an introduction to computer-aided design and modeling.

Course Objectives:
1. State and explain the Design Process.
2. Sketch multiview and pictorial.
3. Utilize drafting equipment to create multiview and pictorial drawings.
4. Utilize CAD to create multiview and pictorial drawings.
5. Read and transfer accurately dimensions from the architectural, engineer, and metric scales.
6. Construct figures utilizing correct geometric constructions both manually and with CAD.
7. Draw section and auxiliary views using CAD.
8. Accurately give a size description of objects using the accepted techniques of dimensioning and basic tolerancing.
9. Complete a working drawing (project) using CAD.

Textbook:

Technical Drawing, 12th edition, Prentice Hall Publishers. 2004. Authors: Giesecke, Mitchell, Spencer, Hill, Dygdon, Novak.

Software taught:

AutoCAD 2007

Recommended reading:

AutoCAD 2007
Technical Drawing Videos 604.2 T255
How to Read Shop Prints 604.25 H264h
Blue print reading for the machine trades. Reston Publishing Co., Inc.: Reston, Virginia
Construction Blueprint Reading, Reston Publishing Co., Inc.: Reston, Virginia

Course outline:

1. Orientation and course connections
2. Sketching multi view and pictorial drawings
3. Tools for manual drafting
4. Reading Scales
5. Drawing setup and paper sizes
6. Drawing multi view and pictorial drawings
7. Intro to CAD, Coordinate system, Layers, Symbols
8. CAD commands
9. Geometric constructions with instruments and CAD
10. Using CAD in drawing multi view and pictorial drawings
11. Annotating, dimensioning and tolerancing
12. Sections and Auxiliaries
13. Working drawings

Basis for Final Grade:

Attendance & Class participation	10%
Test 1 (objective 1, 2,3)	08%
Test 2 (objective 4,5,6)	08%
Test 3 (objectives 7,8,9)	08%
Final Exam	15%
Drawings & participation (objective 1,2, 3, 4, 5, 6, 7)	25%
Quizzes	04%
Homework's	10%
Project (objective 8, 9)	10%
Portfolio	02%

Scale for the grade

90 – 100%	A
80 – 89%	B
70 – 79%	C
60 – 69%	D
< 60%	E

Week	Activity
1	Orientation, Course goals and Objectives, Pretest, Design Process, Visualization and sketching multiviews and pictorials
2	Continue visualization and sketching multiviews and pictorials
3	Technical Drawing Tools, Reading scales, Paper sizes, Lettering
4	Multiview drawing with instruments, Intro to CAD
5	Geometric constructions with instruments and CAD, **Test 1**
6	Multiview drawings with CAD
7	Continue multiview drawings with instruments and CAD
8	Pictorial drawings with instruments and CAD
9	Multiview drawings with CAD, **Test 2**
10	Continue multiview drawings with CAD
11	Dimensioning and basic tolerancing with CAD
12	Primary auxiliary views and sections
13	Intro to 3D using CAD
14	3D modeling, Working drawing approval & sketch; **Test 3**
15	Basic blueprint reading, Working drawing project with CAD
16	Continue working drawing with CAD, Complete portfolio with name and title on front cover, table of contents inside
17	Finals week

The instructor reserves the right to alter this tentative schedule as circumstances may dictate. Changes will be announced in class. It is the student's responsibility to obtain information pertaining to changes in this schedule that are announced when he/she is absent from class.

Attendance policy:

Class meets 4 hours per week--two-hour lecture, two hours lab. Students must attend all scheduled classes. Surprise quizzes will be given. Except in emergency situations or prior approval (with doctor's note), students will receive an unexcused absence for classes (/quiz) missed. Three (3) unexcused absences will automatically cancel make up of all previous work. Excessive absences excused or otherwise, will result in an E for the class. There is **no makeup for quizzes**.

Homework Policies:

No late assignment will be accepted. It is impossible to fairly evaluate students when assignments are completed at various times, therefore **I can not accept assignments** even after one day late unless there are extenuating circumstances. You may also loose points if assignments are one day late even with those circumstances.

E-mailing Policy and Format

E-mail should be sent from your MSU e-mail account, any e-mail from personal account like yahoo, or, hotmail will be ignored because it goes directly to spam. In your e-mail the subject should be as following: **ITECD-103- (HW, Exercise, Project, Exam, etc) - Your name.**
I will not reply to any e-mail does not follow that format.

Accessibility policy:
Please let me know if you have conditions or situations of which I may not be aware. Students with disabilities will be accommodated with assistance from the Department and the Academic Services Center, Allie Young, 3-9121. Please inform me of such needs by the end of the second week of classes.

Assessment techniques (see objectives and attached competencies for details):
Multiple assessment measures are used to determine students' competencies. **Written and performance test** are given to determine knowledge of terminology, identification of tools and materials, content and the ability to think critically--Objectives 1-8. **Project and activity exercises** are given to ascertain whether students can perform design and drafting functions with manual and CAD techniques—Objectives 1-9. **Drawings and a final project** are performed to determine whether students learn the skills to perform requirements in later courses where sketches and drawing are required—Objectives 2-9.

Projects and portfolio:
You will be expected to complete drawings including a final project, read blueprints, and turn in a professional portfolio that will contain all work except the final project. The portfolio will be clearly labeled on the front with your name, course, section, etc. and include a table of contents as the first page. The portfolio is due two weeks before finals.

Course policy:
Students are expected to act in a professional manner in dealing with all matter pertaining to the course. In particular, deceptive practices of any sort are unacceptable. Projects are to be your own work. This does not mean that you cannot discuss ideas and approaches with other students or faculty, but you should work and do on yourself. In particular, **you should never be in possession of a copy (in any form) of all or part of another student's methodology**. If you have any questions as to what type of cooperation are acceptable, please talk to me.

Announcements:
You are responsible for the announcements made in the class. In addition, it's your responsibility to periodically check your blackboard, email account, and WebPages for the course details.

Materials for the course:
Large eraser, wooden or mechanical pencils 6H, H, HB; 6" compass; Metric scale (small); Architecture Scale, engineer Scale (required of construction majors); Circle Template; Drafting tape.