

**COURSE SYLLABUS**  
**LEXINGTON COMMUNITY COLLEGE**  
**Kentucky Community and Technical College System**  
**CAD 100 -401**  
**Introduction to Computer-Aided Design**  
**SPRING 2005**

**INSTRUCTOR:** Christopher C. Centers

**OFFICE HOURS:** By appointment

**PHONE:** 859.806.4746 (Personal); 859.885.9613x3471(WORK)

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**DIVISION PHONE:** 257-4872 ext. 4004 (leave messages)

**AREA COORDINATOR:** Mike Binzer, 125 MB, 257-4872 ext. 4109

**DEPARTMENT CHAIR:** Cindy Barber, 257-4872 ext. 4112

**REQUIRED TEXT:** “**AutoCAD 2004 Tutorial, First Level 2D Fundamentals**” by Randy Shih

**COURSE DESCRIPTION:**

An emphasis will be placed on techniques of computer drafting; construction of straight and curved lines; orthographic and axonometric views and sections; dimensions, tolerances, and notes; as well as an introduction to the terminology associated with CAD. Basic computer operations involving move, copy, delete, and save are included along with drawing manipulation involving translation, rotation, zooming, panning, and windowing. Lecture: 2 hours, laboratory: 3 hours. Prerequisite: ME 105 or ET 102 or consent of instructor.

“CADD” –**Computer Aided Design Drafting**. This class will begin to develop your understanding of the CAD environment, Beginning with the basics and relating them to traditional drafting techniques. As the course progresses, not only will you learn the technical side of the software and drafting standards, but you will learn how and why these concepts work.

**COURSE OBJECTIVES:**

- Familiarity with the verbal and graphic language of the Drafting/design industry
- Build and develop problem solving techniques
- Understanding the conventions of graphic communications throughout various fields of industry
- Spatial visualization
- Organizational skills as they apply to folders, drawings, and back-up drawings
- Develop and improve on design principles and practicality
- Creation of accurate and efficient CAD drawings
- Understanding of drawing presentation
- Dimensioning, tolerances, and detailing techniques
- Use of Line weights, Line types, and Line colors as dynamics of a drawing
- Creation of Multi-view and Isometric drawings

## **GUIDELINES, POLICIES, and CLASS STRUCTURE:**

In order to make the most of each class, come prepared. This class will not only be a learning environment, but a platform for developing a good work ethic. CAD is a skill that is commonly used in an office environment, and as such the classroom will be treated as our office.

In order to utilize class time most efficiently, it is recommended that the student study references, plan drawings and execute sketches outside of class and allow maximum time for drawing during the class period. Reading assignments are expected to be completed outside of the laboratory period.

It is highly recommended that the student maintain good class notes, along with sketches, drawings, etc. to form a notebook for future reference.

Lab time is provided for students to work on class assignments. In addition to regular class time, the computer lab in MB 131 and the computer lab in MB 225 will be available as posted.

The students' text, notebook/documentation, and diskettes must be available at each and every class meeting. Students are warned to exercise diligence in protecting their diskettes by labeling them for identification purposes including a phone number where you can be contacted and/or this course number and section. Diskettes should be transported in a protective container and care taken to keep them away from harmful sources such as heat and magnetic fields. You are solely responsible for the data stored on your computer disks. Loss of computer data, regardless of cause, will be viewed as failure to submit. It is highly advisable to backup all assignments on a second diskette.

It is expected that the student will execute optimum care in the use of the classroom facilities and especially in the environment of their, particular work area.

**Food, Drink, and Tobacco Products are PROHIBITED in the classroom.**

## **ATTENDANCE**

Students are expected to attend all class meetings. Because success in this course is dependent upon continuous practice and constant direction from the instructor, regular attendance is essential. If unexcused absences exceed two, students may be asked to withdraw. In any case, the combination of excused and unexcused absences cannot exceed one-fifth of the class contact hours. If a student misses more than one-fifth of the class, the instructor may require the student to withdraw. If the student is tardy three times, they will receive one unexcused absence; there is a grace period... but don't consider this to be extra time to get to class.

If you are not going to be present in class, make all necessary arrangements with the instructor **PRIOR** to the date of absence. You should contact the instructor at the noted phone number on the top of this document. Any failure to make such arrangements will result in not being able to make up the missed work.

## **WITHDRAWAL**

After **MARCH 11<sup>th</sup>** the instructor's permission will be given only if the student has a passing grade and has not exceeded the maximum number of absences. Exceptions will be made only in extreme emergencies and at the instructor's discretion. In all cases it is the student's responsibility to seek official withdrawal from the course; the instructor is not allowed to assign

a “W” grade unless the student requests it. Students who simply stop attending will receive a failing grade.

### **REASONABLE ACCOMMODATION AND MEDICAL CONDITIONS**

If you have a special need that may require an accommodation or assistance, please inform the instructor as soon as possible and no later than the end of the second class meeting.

### **EOA**

The Lexington Community College is an Equal Opportunity Institution. Respect for all people, verbally and physically is the foundation for a positive learning environment.

### **GRADING PROCEDURES:**

#### **Grading:**

**55 pts = Work Ethic Compliance**

**240 pts, 10 pts/each entry = Design / Visualization Journal**

**900 pts, 300 pts each Tests**

**9pts / per day, 29 Days = 261pts possible**

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**1465 pts total**

### **GRADING SCALE:**

A = 100 - 94

B = 93 - 85

C = 84 - 75

D = 74 - 65

E = below 65 (failure)

There will be at least three (3) major exams plus multiple graded classroom assignments. A Final Project may be enacted which will count as a major exam. Grades will be calculated on the basis of total points accumulated divided by total possible for the semester. There will be no grade point curve for this class. Extra credit work is an option after mutual agreement of content between student and instructor is confirmed.

**Daily Work:** Throughout the duration of class, assignments will be given. These will be graded at random.

### **Design/Visualization Journal**

This is a journal that you will work on throughout the semester. The journal will be subdivided into three sections: Form/Function, Design, Appeal. In each section you will place eight (8) examples of each along with a valid explanation of why it belongs in that section. More information will be given about the layout and construction of the journal.

### **Work Ethic Compliance**

This is a measure of grading your readiness to enter the work force as an active member of a company or business. The objective is to teach you to be prompt, an active member of the group, and to be responsible for all work/tasks presented to you.

**The breakdown:**  
**Promptness 25%**  
**Willingness 25%**  
**Responsibility 25%**  
**Attitude 25%**  
**Total 100% of 55 pts**

**Dates:**

- **Feb. 15<sup>th</sup> – Review for first exam**
- **Feb. 17<sup>th</sup> – First Exam**
- **March 14<sup>th</sup>-18<sup>th</sup> – Spring Break!**
- **March 29<sup>th</sup> – review for second exam**
- **March 31<sup>st</sup> – Second Exam**
- **April 25<sup>th</sup>-29<sup>th</sup> – Dead week.**
- **Final TBA!**

**Make-up Work:** Make up work will be assigned pending an excused absence. Tests cannot be made-up unless notice was given prior to the test. Exceptions can be made pending circumstances and instructor approval. The time and date of any make-up work will be determined by both the instructor and the student.

**EQUIPMENT AND SUPPLIES:**

Notebook, for writing and sketching in, Disk or other data storage device (Geek whistles work well. <USB Jump Drive>).

**TENTATIVE COURSE OUTLINE:**

**Week Topic**

- 1 Introduction 1,2 Getting Started with AutoCAD 2004
- 2 Drawing Set-ups and Organization
- 3 AutoCAD Display and Selection Operations 3 Modify Commands
- 6 Performing Geometric Constructions
- 7 Adding Text
- 8 Object Grips and Changing the Properties
- 9 Multi-view Projection
- 11 Plotting
- 12 Dimensioning
- 13 Auxiliary Views
- 13 Isometric Drawings
- 14 Blocks, External References
- 14 3-D Solid Design
- 15 Independent Projects