CS335 GRAPHICS AND MULTIMEDIA
Fall 2006
TR 3:30pm - 4:45pm (CB 204)

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TA: TBA

Office hours: TR 1:00pm - 2:00pm and by appointment

Lab: Computer Science Multilab
Location: 203 EE Annex
Hours: Monday - Thursday 9:00am - 9:00pm
      Friday 9:00am - 5:00pm

Text: Java HOW TO PROGRAM, 6th edition
Authors: H. Deitel & P. Deitel
Publisher: Prentice Hall, 2005
ISBN: 0-13-148398-6
and my notes (can be downloaded from my website)

Supplementary Texts: COMPUTER GRAPHICS - USING OPEN GL, 2nd edition
(not required) Authors: F.S. Hill, Jr.
Publisher: Prentice Hall, 2001
ISBN no: 0-02-354856-8

Grading Policy:
Programming Assignments(3) 40%
Midterm 20%
Final 20%
Homework 20%

* Programming assignments should be done in Java, on machines in MultiLab.

Late Penalty:
I will accept programs and homework up to two days late for a penalty of 40% (20% each day overdue). Programs and homework more than two days late will not be considered for a grade.

**Scale:**
- 86 - 100  A
- 76 - 85  B
- 66 - 75  C
- 56 - 65  D
- 0 - 55  E

**Plagiarism and Cheating:**

Plagiarism and cheating are serious academic offenses. The minimum penalty for those academic offenses is final grade E in the course. The university regulations pertaining to this matter can be found at [http://www.uky.edu/StudentAffairs/Code](http://www.uky.edu/StudentAffairs/Code) Of particular relevance is Part II, SELECTED RULES OF THE UNIVERSITY SENATE GOVERN-ING ACADEMIC RELATIONSHIPS, Section 6.3 that can be found at [http://www.uky.edu/StudentAffairs/Code/part2.html](http://www.uky.edu/StudentAffairs/Code/part2.html)

(These rules in particular say:

6.3.1 PLAGIARISM All academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, or self-expression. In cases where students feel unsure about a question of plagi-iarism involving their work, they are obliged to consult their instructors or the matter before submission. When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgment of the face, the students are guilty of plagiarism. Plagiarism includes reproducing someone else’s work, whether it be published article, chapter of a book, a paper from a friend or some file, or whatever. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be. Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student and the student alone. When a student’s assignment involves research in outside resources or information, the student must care-fully acknowledge exactly what, where, and how he/she has employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content, and phrase-ology intact is plagiaristic. However, noth-ing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain. 6.3.2 CHEATING Cheating is defined by its general usage. It includes, but is not limited to, the wrongfully giving, taking, or presenting any information or material by a student with the intent of aiding himself/herself or another on any academic work which is considered in any way in the determination of the final
grade. Any question of definition shall be referred to the University Appeals Board.)

I want to emphasize that in this class students are allowed to discuss ideas and are allowed to help others by explaining concepts and possible solutions. However, all the work that is submitted must be performed by the students individually. Any sharing of electronic files, printouts and other materials developed by the students is not allowed. If any fragments of text appearing in books, journals, conference proceedings, web pages, etc. are used, students must provide appropriate citations. Any help from others must also be acknowledged.

Course Description:

This course focuses on the graphical human-machine interface, covering the principles of windowing systems, graphical interface design and implementation, and processing graphical data. There is an emphasis on medium-scale programming projects with graphical user interfaces using an object-oriented programming language such as Java.

Prerequisites: CS216

Course Contents:

- **Object-Oriented Programming Using Java**: object-oriented concepts - a tour, objects, applets, control structures, methods, arrays, object-based programming, object-oriented programming, strings
- **2D Graphics Techniques**: graphics systems, 2D Graphics primitives, 2D transformations, rendering and scan-conversion, curves, polygon primitives, smooth regions (circles and ellipses)
- **User Interface Design**: basic concepts, event handling, layout management, graphics algorithms and toolkits, UGI design, managing text areas, canvases, custom components
- **Exception-Handling and Multithreading**: understanding, performing and using exception-handling, understanding and using multithreading
- **Multimedia**: image creation and display, image formats, simple animation*, animation and threads*, rendering and displaying, animated sequences*, image maps*

* Optional

Important Dates:

- Midterm: 10/17/06 (Tuesday)
- Last day to withdraw from a course: 10/20/06 (Friday)
- Thanksgiving Holidays: 12/23/06-12/25/06 (Thursday-Saturday)
- Last day of classes: 12/8/06 (Friday)
- Final Exam: 12/11/06 (Monday 3:30 pm)