1. Introduction

This course will teach the basic principles of two-dimensional computer graphics, user interface design, and digital image manipulation using the Java programming language. Students will be evaluated based on work in the form of programming projects, problem exercises, examinations, attendance, class participation and presentations/demonstrations.

1.1 Professor
The professor for this course is Dr. Brent Seales (dmn.netlab.uky.edu/~seales). The course homepage is dmn.netlab.uky.edu/~seales/cs335.html. Office hours: 3:30-4:30 Tues/Thurs. Office location: 235 Hardymon.

1.2 Course Materials
Course materials will be available on the course web page. You are responsible for obtaining a copy of the primary textbook. Copies of reference texts will be placed on reserve as needed in the Engineering Library (3rd floor Anderson Hall). The course web page and email will be the primary method of distributing information for the course.

Required Text:
Java: How To Program (Seventh Edition)
by Deitel and Deitel

Reference Texts:
Digital Image Processing: A Practical Introduction Using Java
By N. Efford
ISBN 0-201-59623-7

Usability Engineering
By Rosson and Carroll
ISBN 1558607129 Morgan Kaufman

By D. Hearn and M. Baker

2. Grading and Assignment Policies
Your grade in CS335 will be determined according to relative weights below, with letter grade assigned as indicated:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight (%)</th>
<th>Grade Range</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming Assignments</td>
<td>45%</td>
<td>90-100</td>
<td>A</td>
</tr>
<tr>
<td>Exercises</td>
<td>25%</td>
<td>80-89</td>
<td>B</td>
</tr>
<tr>
<td>Exam 1</td>
<td>15%</td>
<td>70-79</td>
<td>C</td>
</tr>
<tr>
<td>Exam 2</td>
<td>15%</td>
<td>60-69</td>
<td>D</td>
</tr>
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<td></td>
<td></td>
<td>0-59</td>
<td>E</td>
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</tbody>
</table>

Individual programming assignments are to be completed by each student using the Java programming language. Exercises are problem sets to be completed individually. Exams will be given in class.
2.1 Deadlines and Submissions
All programming assignments must be submitted electronically via the Internet. You will receive submission instructions in class. Assignments must be submitted at or before class time of the day the assignment is due. All submissions must conform to the platform requirements directed in class. Specifically, submissions must compile and run using the particular version of Java announced in class. Late submissions will receive a penalty according to the following chart:

<table>
<thead>
<tr>
<th>Class time of due date:</th>
<th>On time (No penalty)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next class:</td>
<td>10% deduction</td>
</tr>
<tr>
<td>Anything not turned in</td>
<td></td>
</tr>
<tr>
<td>by the class following</td>
<td></td>
</tr>
<tr>
<td>the due date will not</td>
<td></td>
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<tr>
<td>be accepted.</td>
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</tbody>
</table>

2.2 Academic Dishonesty
Individual work (programming, exercises, exams) must be your own. You may discuss ideas with others, but no sharing of computer code or other work will be allowed. The University of Kentucky’s guidelines regarding academic dishonesty will be strictly enforced.

3. Computer Facilities
If you do not have a computer you can use to do Java programming, you can request from me an account for this course in the Multilab, a PC laboratory administered by the Computer Science department located in Room 203 of the Engineering Annex. For information regarding this laboratory, see links under “facilities” from the Computer Science homepage (www.cs.uky.edu). You may use alternative computer systems for developing and testing your work, provided that your submitted work will compile and run under the proper software environment. This semester we will be using Java 2SE 6 from Sun as the development platform.

4. Educational Objectives
This course will help you achieve the following educational objectives:

- Understand the principal technical elements of computer graphics, image processing, and user interface design
- Learn how to build computer programs that manipulate images, use computer graphics operations, and provide a user interface
- Learn the Java Programming Language
- Understand the relevance and importance of computer graphics, image processing, and user interface design in the context of computer science as a vocation

In addition, this course will help you improve the following specific skills:

- Object-oriented programming and extensive use of pre-defined objects and APIs
- Event-driven programming for control of a user interface
- Data structures for representing and manipulating images and graphics primitives