1. Introduction

This course will focus on fundamental aspects of virtual reality systems, with emphasis on emerging technologies to support virtual reality applications and collaborative environments. The course will concentrate on mastering the fundamental concepts presented in the required textbook and in current technical papers. The goal of the course is for students to master the central concepts underlying the state-of-the-art in Virtual Reality research and application. Topics will be covered in a way that allows students in related areas to understand the material.

1.1 Professor
The professor teaching this course is Dr. Brent Seales (http://dmn.netlab.uky.edu/~seales). The course homepage is http://dmn.netlab.uky.edu/~seales/cs637.html. Office hours: 4-5 MWF. Office location: 236 Hardymon.

1.2 Course Materials
Auxiliary course materials will be available electronically on the course web page. You are responsible for obtaining a copy of the primary textbook and all other materials to be read and discussed in class. You are also encouraged to read the suggested supplementary information. Material other than the primary textbook and on-line papers will be placed on reserve 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.

Primary Text:
Virtual Reality Technology (2nd edition)
G. Burdea and P. Coiffet

Secondary Text:
Handbook of Virtual Environments: Design, Implementation, and Applications
Edited by Kay Stanney

2. Grading and Assignment Policies
Your overall grade in CS637 will be determined according to the weights in the table below, and your letter grade will be calculated according the given scale:

<table>
<thead>
<tr>
<th>Grading Breakdown</th>
<th>Final Grade Scale</th>
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</thead>
<tbody>
<tr>
<td>Assignments: 40%</td>
<td>90-100</td>
</tr>
<tr>
<td>Exams: 30%</td>
<td>80-89</td>
</tr>
<tr>
<td>Quizzes: 20%</td>
<td>70-79</td>
</tr>
<tr>
<td>Final Presentation: 10%</td>
<td>60-69</td>
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<tr>
<td></td>
<td>0-59</td>
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</tbody>
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Class Participation
You must attend class and participate in class discussions. Required presentations will be evaluated in terms of organization, understanding, preparation and delivery.

Exams
There will be two in-class written exams.

Assignments
Assignments will vary and will be designed to give opportunities to solve problems, write essays and discover new ideas related to the topics discussed in class.

2.1 Academic Dishonesty
All individual work for this course must be your own. You may discuss ideas with others, but no sharing of written work will be allowed. The University of Kentucky’s guidelines regarding academic dishonesty will be strictly enforced (see section 6.3 of http://www.uky.edu/StudentAffairs/Code/part2.html for a more complete description of your obligation as a student not to engage in behavior considered to be plagiarism or cheating).

2.2 Re-grading of Work
If you request that credit for a portion of your work be re-evaluated, the complete assignment will be re-evaluated to ensure correctness and consistency. This could result in either increased or decreased credit with respect to the original evaluation.

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

- Understand the principal technical elements of virtual reality systems and components
- Understand the relevance and importance of virtual reality technology in the context of computer science as a vocation
- Understand major examples and case studies of systems that have been implemented and deployed using virtual reality technologies

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

- Technical reading and writing
- Problem solving
- Organization and presentation of technical material