Hello former CS 1000 Computer Skills and Concepts student,

Have an interest in becoming a web developer? Seeing what makes computer games tick and how to create and understand some simple ones? Wonder how the movie Ghostbusters connects up to computer programming, problem solving and trouble shooting? Want to make sure you Excel some this fall semester? Want to be halfway done with the Certificate in Computer Applications?

CS 1010 Microcomputer Applications and Systems Integration is a class that has as a prerequisite either CS 1000 Computer Skills and Concepts or experience with Adobe products OR Microsoft Excel spreadsheet basics OR any previous computer class.

The class will give you experience with Adobe products such as Fireworks, Dreamweaver, Photoshop and Flash. You will learn some beginning Flash ActionScript 3.0 programming to create interactive applications. We will spent some time learning to create a Flash game that can be published to the web.

It will introduce you briefly to Autodesk Maya 3D graphics. Maya won an academy award in 2003 for scientific and technical achievement. It is used at John Deere and in industry as well as being used in the movie industry for special effects and modeling characters like the dinosaurs in Jurassic Park, Shrek, characters and scenes and worlds in Lord of the Rings and so on.

There will be no required textbook for the class. We will take advantage of http://lynda.uni.edu resources that all UNI students have access to. We will also have lots of class handouts and extensive web resources to read and/or watch to learn the concepts. Every class is hands–on, since we are in Lang 213 computer lab/classroom.

If you have any questions, email me at jacobson@cs.uni.edu for answers or if you need the prerequisite hold released.

Thanks,

Mark Jacobson
<table>
<thead>
<tr>
<th>Week</th>
<th>Tentative subject/topic/software</th>
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<tbody>
<tr>
<td>02 – Aug 27</td>
<td>Excel Visual Basic for Applications (VBA) basics. The birthday problem.</td>
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<tr>
<td>03 – Sep 03</td>
<td>Excel VBA and the racing rectangle game. Introduction to Flash animation.</td>
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<tr>
<td>04 – Sep 10</td>
<td>Flash ActionScript 3.0 basics. Introduction to Flash games software examples.</td>
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<td>05 – Sep 17</td>
<td>Publishing a Flash application to your web site.</td>
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<td>06 – Sep 24</td>
<td>Flash and ActionScript 3.0 continued. Flash and audio. Flash and URLs.</td>
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<td>07 – Oct 01</td>
<td>Review of Flash, ActionScript 3.0 and Excel VBA for the exam.</td>
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<td>08 – Oct 08</td>
<td>Test one on Tuesday, October 9th.</td>
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<tr>
<td>09 – Oct 15</td>
<td>Introduction to Adobe Fireworks and Adobe Dreamweaver.</td>
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<td>10 – Oct 22</td>
<td>Creating a website using Fireworks, Dreamweaver and Photoshop.</td>
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<tr>
<td>11 – Oct 29</td>
<td>Flash ActionScript: Creating a Tank Battle Game</td>
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<tr>
<td>12 – Nov 05</td>
<td>Flash continued. Introduction to Adobe After Effects and Autodesk Maya.</td>
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<td>14 – Nov 26</td>
<td>Test two on Thursday, November 29th.</td>
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<td>16 – Dec 10 (finals week)</td>
<td>3–4:50 pm final exam period (Group presentations, Ghostbuster’s party)</td>
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<td>Optional extra credit due anytime by or before the END of finals week.</td>
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http://lynda.uni.edu provides the 5 hours and 39 minutes of Flash ActionScript 3.0 Projects: Game Development training for free to all UNI students.

http://lynda.uni.edu provides the 2 hours and 44 minutes of Excel VBA Macros training for free.
Introduction
- Welcome
- Using the exercise files
- Game development

1. Creating a Shooter Game
- Overview of the game
- Creating a custom cursor
- Copying motion from the timeline
- Creating dynamically moving enemies
- Shooting enemies
- Destroying enemies
- Winning the game
- Creating a Win screen
- Troubleshooting your game

2. Creating a Ping Pong Game
- Overview of the game
- Making the ball bounce
- Creating and moving a paddle
- Bouncing the ball off the paddle
- Using math to calculate the angle of a bounce
- Developing the enemy’s artificial intelligence
- Keeping track of points
- Determining a win
- Adding sound

CS 1010 Microcomputer Applications and Systems Integration 3 Units
Undergraduate Enrollment Requirement(s): 810:021 (CS 1000) or equivalent
01 - LEC (32357) 3 Units
12:30PM 01-145PM TR
Mark F Jacobson LNG 213
This course is part of the Computer Applications certificate. Emphasizes Adobe Fireworks, Dreamweaver, Flash video, and an introduction to Excel VBA macros.
See also the following if you are interested in learning Maya 3D Graphics or fulfilling your LAC requirement for Category 1C: Quantitative Thinking.


[CS 2880 Topics in Computing: 3D Graphics in Maya 3 Units](http://www.cs.uni.edu/~jacobson/1025/art/)

[CS 1025 Computational Modeling and Simulation 3 Units](http://www.cs.uni.edu/~jacobson/1025/art/)