PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
MASTER SYLLABUS

ADVANCED COMPUTER GRAPHICS
WEB 2811

Class Hours: 3.0  
Credit Hours: 3.0
Laboratory Hours: 0.0  
Date Revised: Spring 02

NOTE: This course is not designed for transfer credit.

Catalog Course Description:

This course is designed to enhance the computer skills of those using graphics programs to prepare images for the Web or for print. Students will learn to enhance and create digital images using Photoshop; optimize images for speed of download; place and manipulate type in an image; work with layers and masks; use filters for special effects; work with background images and transparent gifs; create image maps; use ImageReady to create animations, slices, web photo gallery, and rollovers.

Entry Level Standards:

Students taking this course should be proficient in Windows 98 or 2000, have access to a copy of Photoshop 6.0 and ImageReady, have a working knowledge of the Internet and how to create web pages using HTML and/or an HTML editor, be able to create and manipulate digital graphics using a graphics program, be familiar with graphics file types, be able to submit files to the instructor using email attachments or ftp, and be able to send files to instructor on a 100Mb ZIP disk.

Prerequisites:

OST 2801, 2802, 2803; or CSIT 2645; or equivalent (RODP prerequisite: INTC 1050)

Textbook(s) and Other Reference Materials Basic to the Course:

Required Textbook:
Adobe Photoshop 6--Advanced Digital Images/Against the Clock, Prentice Hall, 2002,

Supplementary Materials:
1. Student should purchase two 100-Mb ZIP disks for saving and submitting work to instructor. These disks will be mailed in to the instructor and will be returned to student.
2. CD that accompanies textbook. CD contains the graphic files to be used in textbook projects.

Hardware Requirements:

IBM-type criteria:
Pentium Computer 300 MHz minimum (Pentium III/750 MHz preferred) processing speed
64 MB RAM (128 MB RAM preferred)
Monitor capable of at least 800 x 600 resolution
CD-ROM drive
100 MB ZIP drive
56 kbps modem with Internet access (high speed such as cable modem or DSL recommended if
Speakers and 16 bit sound card  
Operating System: Windows 98 or higher  

**Macintosh criteria:**  
PowerPC minimum (G3/300 MHz preferred)  
64 MB RAM (128 MB RAM preferred)  
Monitor capable of at least 800 x 600 resolution  
CD-ROM drive  
100 MB ZIP drive  
56 kbps modem with Internet access (high speed such as cable modem or DSL recommended if possible)  
Speakers  
Operating System: Macintosh 8.5.1 or higher (Mac OS 8.6 or higher preferred)  

**Software Requirements:**  
Adobe Photoshop 6 with ImageReady  
MS Office 95 or higher  
WinZIP or equivalent software for compressing files  
Internet Explorer at http://www.microsoft.com/windows/ie/  

**I. Week/Unit/Topic Basis:**  

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Calibrating your system and correcting images: advanced color management, adjusting brightness and contrast, tools for brightness and contrast, using levels to adjust midtones, curve maps, understanding duotones, color models, understanding the color wheel, mixing colors, color correction tools.</td>
</tr>
<tr>
<td>2</td>
<td>Transforming images and channels operations: using the guides and grid, channels and density, using channel calculations, managing channels, special purpose channel modes, spot color images.</td>
</tr>
<tr>
<td>3</td>
<td>Selection techniques: using selections, Magic Wand tool, using the color range command, using the Quick Mask mode, selections and paths, using the Magnetic Lasso, image extraction, Eraser tools.</td>
</tr>
<tr>
<td>4</td>
<td>Layers: making changes to a layered image, layer options/styles/properties, layer masks, complex composites using layers, clipping groups, layer effects/styles.</td>
</tr>
<tr>
<td>5</td>
<td>Retouching: Clone Stamp tool, repairing images in a structured manner, other retouching tools, using filters for retouching.</td>
</tr>
<tr>
<td>6</td>
<td>Midterm</td>
</tr>
<tr>
<td>7</td>
<td>Blurring and sharpening images, remapping commands, layer styles, creating patterns and textures, special effects.</td>
</tr>
<tr>
<td>8</td>
<td>Special effects</td>
</tr>
<tr>
<td>9</td>
<td>Working smarter: keyboard commands, using Auto Levels command, the auto button, the Action Palette, the History Palette, Art History brush, web photo gallery; Importing and Exporting: importing files and saving images for the web.</td>
</tr>
</tbody>
</table>
Photoshop and ImageReady: web graphics, advanced web formats, image maps, slicing images, JavaScript rollovers.

Animations

Final

The RODP version of this course will be taught in 12 weeks. The PSTCC version of this course will be taught over 16 weeks.

II. Course Objectives*:
   A. Enhance and create digital images using Photoshop.
   B. Optimize images for speed of download.
   C. Place and manipulate type in an image.
   D. Work with layers and masks.
   E. Use filters for special effects.
   F. Work with background images and transparent gifs.
   G. Create image maps.
   H. Use ImageReady to create animations, slices, web photo gallery, and rollovers.

*Roman numerals after course objectives reference goals of the WEB program.

III. Instructional Processes*:

Students will:

1. Use technology to promote the objectives of this course; specifically, using dynamic graphical elements to enhance Web pages. Technological Literacy Outcome

2. Examine and analyze graphic design in Web sites. Problem Solving and Decision Making Outcome, Technological Literacy Outcome

3. Define and recognize well-designed Web pages with Web appropriate graphics created by the students using PhotoShop and GIF Animator software. Technological Literacy Outcome

4. Critique work of classmates based on principles learned in class. Communication Outcome, Active Learning Strategy

5. Complete at least one project that involves accessing Internet resources and designing images for Web pages that provide information on another country, culture, or social institution. Technological Literacy Outcome, Cultural Diversity and Social Adaptation Outcome, Active Learning Strategy

6. Develop a vocabulary that allows students to communicate effectively about Web graphics and the effective use of images in Web page design. Communication Outcome

7. Complete at least one project that involves accessing Internet resources and designing images for Web pages that provide information an entrepreneur or business in community. Technological Literacy Outcome, Transitional Strategy, Active Learning Strategy
*Strategies and outcomes listed after instructional processes reference Pellissippi State’s goals for strengthening general education knowledge and skills, connecting coursework to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

IV. Expectations for Student Performance*:

Upon successful completion of this course, the student should be able to:

1. Work effectively with Photoshop's interface, including palettes, tools, and menus.
2. Learn to navigate Photoshop via keyboard shortcuts.
3. Set up Photoshop preferences.
5. Learn the new features included in Photoshop 5, including the History palette and text editing.
6. Learn when and how to use the most common image file formats.
7. Take photographs with a digital camera and scan images into the computer.
8. Create images from scratch.
9. Save, export, and print images.
10. Understand various color models, color palettes, color depths, and calibration.
12. Obtain images for use on the Web through digital photography, scanning, and creation through a paint or imaging editor program.
13. Learn to use MS Image Composer to create graphics for animation.
14. Plan, design, and create a GIF animation.
15. Use student-created images in Web pages that create a Web site on a particular topic or theme.

*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Testing Procedures: 25% of grade

Online quizzes will be built into the course. Due to security issues in online testing, the weighting of the quizzes will be minor in relation to the overall grade for the course. The primary portion of the student's grade will be based on the projects completed. The purpose of the online quizzes is to encourage the student to work through the exercises and to become familiar with the textbook chapters. The quiz items will be randomly generated from a bank of quiz items; each student may receive a different set of quiz questions over a specific topic. A series of non-cumulative theory exams over textbook content will make up 25 percent of the course grade. These quizzes will consist of true/false, multiple choice, and essay questions and will check the comprehension of the reading and practical application of the textbook chapters. Each quiz will contain 10-25 items randomly generated from a bank of quiz items.
over the specified chapter(s). Students may use their textbooks while completing the quizzes.

B. Laboratory Expectations:

N/A

C. Field Work: 70% of grade

Projects using Photoshop and ImageReady will comprise the major part of the grade for this course. The projects will be completed in the course of reading and working through the textbook. The files will be sent weekly through WebCT email as an attachment when feasible; when the filesize is too large to prohibit sending the file through email, the file will be saved to a ZIP disk and mailed to the instructor.

D. Other Evaluation Methods: 5% of grade

Online Communication Tools: Students will use email to communicate with instructor and with each other.

E. Grading Scale:

The following grading scale will be used in this course:

- 90-100% A
- 80-89 % B
- 70-79 % C
- 60-69 % D
- 0-59 % F

VI. Policies:

Submission of Assignments:
It is the student's responsibility to submit assignments by the date indicated. Should events occur which will prevent the student from submitting assignments on time, it is the responsibility of the student to discuss this prior to the due date or as soon as possible. Assignments sent after the due date will be subject to late penalties. Assignments submitted within 2 weeks of due date will receive half credit. Assignments later than 2 weeks late will receive zero credit.

Taking Online Courses:
An online course is not for everyone. Students often state that the hardest part of an online course is to stay motivated to stay on task and to complete work in a timely fashion. You are basically teaching yourself the material; the instructor is managing your learning. The trade-off is that you are involved in a class that you have great control over. If you are not a self-starter, you should consider taking the class in a traditional classroom.

Technical Problems:
You will need access to an external email account and you will be given a WebCT email account. Technical problems on your computer will not be an excuse for the lack of completion of any coursework. In addition, the instructor is unable to provide computer repair for the student's PC.

Class Participation:
This is monitored and will be used as a factor in final grading. Students are expected to communicate with their instructor on a weekly basis at a minimum (this includes the submission of assignments).

Late Work:
Assignments sent after the due date will be subject to late penalties. Assignments submitted within 2 weeks of due date will receive half credit. Assignments later than 2 weeks late will receive zero credit.
Email:
This course will use the email utility within WebCT. You will be expected to check your email daily and communicate with the instructor on a regular basis (weekly, minimum). WebCT email allows for attaching files. You will use this feature to submit some of your assignments to the instructor. However, due to the large file size generated by the graphics files you will be creating, it may be necessary to send through the US Mail a 100-Mb ZIP disk with midterm and final project files. The ZIP disks will be returned to you.

Criteria for Messages:
Always include your name.
Always include a subject line.
If you are submitting an assignment, use the filename in the subject line.
Special formatting such as centering, audio messages, tables, html, etc., should be avoided unless necessary to complete an assignment or other communication.

Students with Disabilities:
If you require an accommodation in order to function effectively in this class, please contact the Director for Students with Disabilities by phone at 865-539-7153 or email asatkowiak@pstcc.cc.tn.us as soon as possible. Also contact me by phone at 865-yourphonenumber or email at gbryant@pstcc.cc.tn.us.

ADA Contact Information: Web site: http://www.pstcc.cc.tn.us/departments/title_iii/directory/ssd.htm
Web Resources:
Photoshop tips, tricks, resources, and tutorials at http://desktoppublishing.com/photoshop.html
Laurie McCanna's Photoshop tips http://www.mccannas.com/pshop/photosh0.htm
Photoshop Central at http://www.photoshopcentral.com/
About.com's list of Photoshop 6 tutorials at http://graphicsoft.about.com/cs/photoshoptools6/
Great URL for finding out things: http://www.refdesk.com/