Class Hours: 3.0  Credit Hours: 3.0
Laboratory Hours: 0.0  Date Revised: Fall 03

NOTE: This course is not designed for transfer credit.

Catalog Course Description:

This course is designed to familiarize students with the technologies associated with bringing photographic (film, video and still) images and audio to the Internet environment and enable them to identify and use the tools which facilitate these media in Web sites. Appropriate media selection, software tools for encoding various media, delivery system attributes and limitations, associated file types, audio and video codecs and software players will be discussed. Students will learn to prepare aural and visual media for the Web by creating and encoding assigned projects.

Entry Level Standards:

Basic knowledge of computing, the Internet, HTML and Web site construction

Prerequisites:

OST 2801, OST 2802, OST 2803; or CSIT 2645; or equivalent for WEB majors; VPT 1030 for VPT majors

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


I. Week/Unit/Topic Basis:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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| 1    | Class objectives/Introduction/Review Syllabus  
                Equipment and software for the course  
                Bandwidth for Video  
                Internet Video Opportunities  
                Websites  
                Producing, Capturing, and Editing Video Content  
                Still Images |
| 2    | Video Compression  
                Audio and Video Codecs  
                What is QuickTime? |
Installing QuickTime Pro
Converting media to QuickTime

3 Putting QuickTime in Web Page
   QuickTime + HTML and MIME Types
   Streaming

4 Alternate Movies
   JavaScripts and QuickTime
   QuickTime Audio

5 Slide Shows in QuickTime
   Converting PowerPoint Presentations
   Editing, Effects and Format Conversion with QuickTime
   Text Tracks and HREF Tracks

6 Uploading Movies to a Streaming Server
   Animation and QuickTime
   Interactive QuickTime

7 Streaming and Non-Steaming
   SMIL and QuickTime
   Virtual Reality

8 Real Networks
   Real Audio
   RealVideo
   Helix Producer

9 RealVideo Delivery
   SMIL Basics
   RealVideo and SMIL

10 Windows Media and other formats
    Components of Windows Media Technologies

11 Improving Audio and Video
    Using Windows Media Tools
    Understanding Windows Media Services

12 The Windows Media Player
    Streaming Live Content
    Windows Media Rights Manager

13 Streaming PowerPoint with Windows Media
    Synchronized Multimedia and Windows Media
    Encoding Windows Media Content

14 MPEG
    Networks

15 Server Requirements
    Webcasting
    Broadband

16 Final Exam Period
II. Course Objectives*:

A. Develop an understanding of the dominant technologies used to bring still and moving images and audio to the Internet. I

B. Enable the identification and use of tools that facilitate these media in Web sites. V

C. Enable the selection of media appropriate for use in Web sites. V,VI

D. Develop skill in using software tools for preparing and encoding various media types for use on the Internet. I

E. Develop a demonstrable knowledge of media file types. I

F. Develop an understanding of delivery system attributes and limitations. III

G. Develop skill in using the dominant audio and video codecs to convert and encode media for the appropriate software players. III

H. Learn to create media with characteristics appropriate for delivery on the Web. I,II,III

I. Demonstrate the ability to incorporate various audio and image media in Web sites. I,II

J. Demonstrate knowledge of interactive features in streaming media. I,II,III,IV

K. Perform all technical aspects of designing, planning, creating, selecting, capturing, editing, converting, encoding, linking, uploading and testing audio and video in Web sites. V,VI

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

III. Instructional Processes*:

Students will:

1. Practice elements of the work ethic such as professionalism, preparedness, punctuality, honesty, cooperation, dependability, contribution, effectiveness, and good manners. Personal Development Outcome, Transitional Strategy

2. Participate in a project development team. Communication Outcome, Problem Solving and Decision Making Outcome, Transitional Strategy, Active Learning Strategy

3. Use professionally accepted methods and materials in completion of projects. Technological Literacy Outcome, Transitional Strategy, Active Learning Strategy, Personal Development Outcome

4. Use a variety of methods to present findings from research. Communication Outcome, Transitional Strategy, Active Learning Strategy, Information Literacy Outcome

*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. Write explanations of the principle concepts of the dominant technologies that
facilitate the use of audio, video and photographic images on the Internet. A

2. Use appropriate terminology to identify and discuss media types and delivery systems and processes. A,B,C,E

3. Identify appropriately prepared media for use in Web sites. A,B,C,E

4. Select equipment and software appropriate for preparing specific audio and image media types to use in Web sites. C

5. Locate and install software used to prepare audio and video for use on the Internet. F,G

6. Perform all technical aspects of designing, planning, creating, selecting, capturing, editing, converting, encoding, linking, uploading and testing audio and video in Web sites. K

7. Effectively use time management principles for their projects and assignments. B

8. Contribute to class discussion and project critiques and use the appropriate terminology to describe and evaluate media, procedures, equipment, software and delivery systems. B

9. Use tools of the Internet to communicate, manage, produce and work with others in web work groups. B

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

V. Evaluation:

A. Evaluation Procedures:

Students will be expected to complete all assignments and projects satisfactorily on time in a professional manner. Evaluation of the student’s knowledge and performance will be based on demonstration by written discussion and testing of the basic competencies required to deploy audio and video on the Internet, as well as demonstrated ability to produce and incorporate suitable audio and video content in functioning project Web sites. Students will successfully complete exercises and tests to demonstrate mastery of concepts and skills.

B. Grading Scale:

A  90-100
B+  85-89
B   80-85
C+  75-79
C   70-75
D   65-69
F   64 and below

VI. Policies:

A. Attendance Policy:

Pellissippi State Technical Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses (excluding videotape and Web courses) must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. (Pellissippi State Catalog)

B. Academic Dishonesty:
Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly through participation or assistance, are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions which may be imposed through the regular Pellissippi State procedures as a result of academic misconduct, the instructor has the authority to assign an F or a zero for the exercise or examination or to assign an F in the course. (Pellissippi State Catalog)

C. Other Policies:

Communications:
1. All communications among students and faculty will be professional, will use professional language and will take place in the designated times and forms outlined in assignments.
2. E-mails to the instructor must be less than 100 words each and will be answered once during office hours that will be posted with the assignment schedule. Telephone calls will be answered during office hours.

Completion:
1. All assignments, exams and projects must be completed in the specified form as outlined and must be submitted by the deadlines posted in the assignment schedule.

Facilities: Students must have a valid Pellissippi ID to be presented on demand to gain access to Pellissippi facilities.

Americans with Disabilities Policy

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.edu as soon as possible. Also contact me by phone at 865-539-7086 or email at mjtomlinson@pstcc.edu.

ADA Contact Information
Web site: http://www.pstcc.edu/departments/title_iii/directory/ssd.htm

Hardware Requirements for This Course

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 (DVD preferred) Drive
56 kbps modem with Internet access (high speed such as cable modem or DSL recommended, if possible)
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 (DVD preferred)
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)