

Pellissippi State Community College  
Master Syllabus

**HTML5 MULTIMEDIA**  
**WEB 2150**

Class Hours: 3.0  
Laboratory Hours: 0.0

Credit Hours: 3.0  
Revised: Fall 2016

**Catalog Course Description:**

This fundamental Web course examines and demonstrates how to ensure that audio or video will work in all browsers that support HTML5 media elements. The topics include widely supported media file codecs and containers, customizing the appearance of media elements with CSS and applying video subtitles and closed captioning with SRT and WebVTT. The emphasis of this course will be on creating high-quality Web pages using HTML5 audio and video media elements.

**Prerequisite(s):**

WEB 1600 and WEB 2010; or CITC 2375; or consent of program coordinator

**Textbooks(s) and Other Course Materials:**

1. *HTML5 Media* by Shelley Powers, O'Reilly Media, 2011. ISBN-13: 9781449304454.

Supplementary Materials: Online Lynda.com video tutorials (provided by college). Internet Explorer 9+, Firefox 3.5+, Opera10.5+, Chrome 6+, and Safari 3.1+ browsers (these support the HTML 5 audio and video elements). Software for SFTP, secure file transfer protocol. Text editor for writing HTML, CSS, and JavaScript.

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

**Week Topic**

- |    |  |
|----|--|
| 1  | Class objectives/Introduction/Review Syllabus, Browsers and editing software for the course. |
| 2  | Adding a Media Element to a Web Page/Media Element Syntax                                    |
| 3  | HTML 5 Audio Codecs/Containers, Lossless vs. Lossy Compression                               |
| 4  | HTML 5 Video Codecs/Containers   |
| 5  | Media Elements in More Detail, Media Specific Attributes                                     |
| 6  | Media Elements and Global Attributes   |
| 7  | Video Resolutions  |
| 8  | Audio and Video in Mobile Devices and Media Profiles   |
| 9  | Converting Audio and Video Content.  |
| 10 | CSS Styling.   |
| 11 | Custom Controls with JavaScript and CSS.   |
| 12 | Media Controllers and the MediaController Interface  |
| 13 | Accessibility and JavaScript Support for Subtitles and Captions.                             |
| 14 | Advanced Media Element Scripting.  |
| 15 | Final Exam   |

## **II. Course Goals\*:**

The course will:

- A. Examine two new HTML5 elements: the audio and video elements. I,II,III
- B. Enable the identification and use of tools for using the new elements in Web sites. V
- C. Diagram the encoding and marking up of media elements appropriate for use in Web sites. V,VI
- D. Build the skills for marking up elements based on quality and type of audio and video file for use on the Internet. I
- E. Develop an awareness of media element types. I
- F. Foster the ability to customize media elements using CSS as well as how to check for browser support. III
- G. Build skills using dominant audio and video codecs to convert and encode media for the audio and video elements. III
- H. Learn to create media with characteristics appropriate for delivery on the Web. I,II,III
- I. Foster the ability to prepare support for multiple audio and video tracks. I,II
- J. Build skills for customizing interfaces for audio and video media elements. I,II,III,IV
- K. Build skills for learning technical aspects of designing, planning, selecting, 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 Technology program.

## **III. Expected Student Learning Outcomes\*:**

Students will:

- 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 software appropriate for preparing specific audio and video 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, selecting, editing, converting, encoding, linking, uploading files to web and streaming servers and testing audio and video in Web sites. K
- 7. Use effective 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. B

\*Capital letters after Expected Student Learning Outcomes reference the course goals listed above.

## **IV. Evaluation:**

- A. Testing Procedures: 50% of grade

Students will complete exercises based on required readings.

B. Laboratory Expectations:

N/A

C. Field Work:

N/A

D. Other Evaluation Methods: 50% of grade

Projects: Students will complete projects uploaded to their own web sites to practice and demonstrate skills in preparing and deploying HTML5 audio and video media.

E. Grading Scale:

A	90-100
B+	85-89
B	80-84
C+	75-79
C	70-74
D	60-69
F	0-59

**V. Policies:**

A. Attendance Policy:

Pellissippi State expects students to attend all scheduled instructional activities. As a minimum, students in all courses (excluding distance learning courses) must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. Individual departments/programs/disciplines, with the approval of the vice president of Academic Affairs, may have requirements that are more stringent. In very specific circumstances, an appeal of the policy may be addressed to the head of the department in which the course was taken. If further action is warranted, the appeal may be addressed to the vice president of Academic Affairs.

B. Academic Dishonesty:

Academic misconduct committed either directly or indirectly by an individual or group is subject to disciplinary action. Prohibited activities include but are not limited to the following practices:

- Cheating, including but not limited to unauthorized assistance from material, people, or devices when taking a test, quiz, or examination; writing papers or reports; solving problems; or completing academic assignments.
- Plagiarism, including but not limited to paraphrasing, summarizing, or directly quoting published or unpublished work of another person, including online or computerized services, without proper documentation of the original source.
- Purchasing or otherwise obtaining prewritten essays, research papers, or materials prepared by another person or agency that sells term papers or other academic materials to be presented as one's own work.
- Taking an exam for another student.

- Providing others with information and/or answers regarding exams, quizzes, homework or other classroom assignments unless explicitly authorized by the instructor.
- Any of the above occurring within the Web or distance learning environment.

Please see the Pellissippi State Policies and Procedures Manual, Policy 04:02:00 Academic/Classroom Conduct and Disciplinary Sanctions for the complete policy.

C. Accommodations for Disabilities:

Students that need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Disability Services (DS) in order to receive accommodations in this course. [Disability Services](#) (<http://www.pstcc.edu/sswd/>) may be contacted via [email](#) or by visiting Alexander 130.