SOUND PRODUCTION
VPT 1010

Class Hours: 4.0 Credit Hours: 4.0
Laboratory Hours: 0.0 Revised: Fall 04

NOTE: This course is not designed for transfer credit.

Catalog Course Description:

An introduction to basic audio production equipment, processes and analog and digital systems, including introduction to ProTools. Analog and digital systems will be used to record, mix and produce a variety of aural media. Emphasis will be placed on recording on location and in the studio, mixing and effects, and processing of multiple sound tracks for use in film, television/video, and the multimedia environment.

Entry Level Standards:

The student should be able to effectively communicate with instructor and peers, complete assignments according to instructor specifications, and read and write at the required level.

Prerequisites:

None

Textbook(s) and Other Course Materials:

Stanley R. Alten, Audio in Media
Des Lyer, Basics of Video Sound

I. Week/Unit/Topic Basis:

General list of topics to be covered for this course

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sound Design</td>
</tr>
<tr>
<td>2</td>
<td>Sound and Hearing</td>
</tr>
<tr>
<td></td>
<td>Acoustics and Psychoacoustics</td>
</tr>
<tr>
<td></td>
<td>Sound Studios</td>
</tr>
<tr>
<td>3</td>
<td>Microphones</td>
</tr>
<tr>
<td>4</td>
<td>Mixing Consoles</td>
</tr>
<tr>
<td>5</td>
<td>Analog Recording</td>
</tr>
<tr>
<td>6</td>
<td>Digital Recording</td>
</tr>
<tr>
<td>7</td>
<td>Sync and Signal Processing</td>
</tr>
</tbody>
</table>
II. Course Objectives*:

A. Demonstrate ability to set up and operate equipment commonly used for audio recording, playback, processing, and editing. IV

B. Exhibit appropriate responsibility in the care and handling of equipment, facilities, and other physical resources. I, II, IV

C. Employ industry established pre-production, production, and post-production control procedures. I, II, III, V

D. Employ industry standard procedures, practices and test equipment required to maintain consistent and acceptable audio signal quality. I

E. Develop a basic understanding of how to record, process, and edit audio signals employing techniques established in the industry to create compelling aural presentations or accompaniment for visual programs. I, IV

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

III. Instructional Processes*:

Students will:

1. Use appropriate technology to function within the discipline. Technological Literacy Outcome, Problem Solving and Decision Making Outcome, Active Learning Strategy

2. Use critical thinking skills to interpret, evaluate, and make informed judgments. Problem Solving and Decision Making Outcome

3. Demonstrate by action an appreciation for caring for facilities and equipment. Personal Development Outcome

4. Apply established industry safety practices and procedures. Personal Development Outcome, Problem Solving and Decision Making Outcome

5. Use industry recognized criteria for organizing audio and visual media to elicit predetermined responses in users. Communication Outcome, Transitional Strategy

*Strategies and outcomes listed after instructional processes reference TBR's goals for strengthening general education knowledge and skills, connecting course work 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. Demonstrate understanding of and employ established procedures for responsible care, handling, and use of all equipment. A, B, C, D, E

2. Observe and employ correct procedures for checking out equipment. This includes both VPT equipment and that which is NOT normally part of the VPT program. A, B, C, D, E

3. Understand the basics of sound transmission, hearing, and acoustics and apply that in work. A, B, C, D, E

4. Perform basic audio recording on both analog and digital devices (video decks as well as audio only recorders). Skills will include tone calibration, level setting, and tape handling. Technical topics covered will include the recording mechanism transport components, and tape formations. A, B, C, D, E

5. Identify and properly handle the many signal formats and interconnections being used in the industry. A, B, C, D, E

6. Identify, understand, and properly use the many types of industry standard microphones and mic accessories available. This includes stereo and multiple miking techniques. A, B, C, D, E

7. Employ proper microphone boom technique in recording audio for video. A, B, C, D, E

8. Understand audio mixing basics (the concepts of gain structure and signal flow), and apply that knowledge with both small location mixers as well as large multi-channel studio consoles. A, B, C, D, E

9. Identify, understand and properly use the many standard signal processing devices. This includes but is not limited to compressors, equalizers, reverberators, delay lines, limiters, and noise gates. A, B, C, D, E

10. Perform basic editing functions with both analog and digital devices. A, B, C, D, E

11. Understand the techniques used in multitrack audio production. This includes the standard music production process of tracking, overdubbing, and mixing. A, B, C, D, E

12. Understand the techniques used in live audio presentations. Concepts include stage monitoring, feedback control, and live music production. A, B, C, D, E

13. Perform basic maintenance tasks such as cable construction, tape head cleaning and demagnetizing, and simple equipment troubleshooting. A, B, C, D, E

14. Understand the basics of digital audio. This includes the subjects of sample rate conversion and PC based (or proprietary) digital audio workstations, DAW. A, B, C, D, E

15. Perform the basic tasks involved in audio sweetening for video. Concepts include machine synchronization, automated mixing, and multi-channel encoding. A, B, C, D, E

16. Use standard and individually developed techniques to construct creative, compelling, and technically consistent audio programs. A, B, C, D, E
V. Evaluation:

A. Testing Procedures:

A detailed outline of requirements will be provide the first week of class via the syllabus supplement.

B. Laboratory Expectations:

A detailed outline of requirements will be provided the first week of class via the syllabus supplement.

C. Field Work:

N/A

D. Other Evaluation Methods:

N/A

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 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). Individual departments/programs/disciplines, with the approval of the vice president of Academic and Student Affairs, may have requirements that are more stringent.

VPT Program:
Because this class is heavily lab oriented, students who fail to attend classes and labs will miss key information that they will need to understand subsequent material. Consequently, attendance and promptness requirements will be significantly more stringent than the PSTCC minimum. The VPT program believes a more stringent requirement is realistic because of the contractual commitment made by the College with local area employers. Therefore, to successfully complete VPT courses, students must attend at least 85% of classes. To be considered in attendance, students are expected to be in class at the scheduled starting time for that class. Students will be considered tardy from that time until 10 minutes after the scheduled starting time. Three such tardies shall constitute an absence. Students arriving any time after 10 minutes beyond the scheduled starting time for a class will be considered absent. Because this class is heavily lab oriented, students who fail to attend classes and labs will miss key information that they will need to understand subsequent material. Consequently, attendance and promptness requirements will be significantly more stringent than the PSTCC minimum.

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. In addition to other possible disciplinary sanctions that may be imposed as a result of academic misconduct, the instructor has the
authority to assign either (1) an F or zero for the assignment or (2) an F for the course.

C. Accommodations for disabilities:

If you need accommodation because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please inform the instructor immediately. Privately after class or in the instructor’s office.
To request accommodations students must register with Services for Students with Disabilities: Goins 127 or 131, Phone: (865) 539-7153 or (865) 694-6751 Voice/TDD.