



MERCER
COUNTY COMMUNITY COLLEGE

COURSE OUTLINE

Course Number
CMN256

Course Title
Digital Audio Production III

Credits
3

Hours:
Lecture/Lab/Other
2 lecture/2 lab

Co- or Pre-requisite
Pre-requisite: CMN253

Implementation
Semester & Year
Spring 2022

Catalog description:

This course continues the study of multitrack recording techniques using state of the art Digital Audio Workstations. Topics include advanced mastering techniques, digital signal processing, auto-tune, session management, techniques for real-time and processed audio plug-ins including reverb, delay, sampling, automation, MIDI sequencing, and virtual instruments. etc. Students will produce multiple multilayered recordings using live talent in a studio environment acting as a producer, engineer, mixer, and mastering engineer.

General Education Category:
Not GenEd

Course coordinator:
Scott Hornick, 609-570-3716, hornicks@mccc.edu

Required texts & Other materials:

Music Notation Program
Some type of DAW – Pro-Tools, Logic Pro, etc.

Course Student Learning Outcomes (SLO):

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

1. Create multi-layered, multi-track recordings using live talent on multiple Digital Audio Workstations. [Supports ILGs #4,10,11; PLOs #1,2,4]
2. Demonstrate conceptual and working knowledge of the basic principles of the Digital Audio Workstation through classroom discussion, written assignments, and audio laboratory exercises, and use appropriate technical and musical terminology in articulating these concepts. [Supports ILGs #1,2,4,10,11; PLOs #1,2,4]
3. Apply advanced production techniques, technologies, and aesthetics related to the development of a compelling soundtrack using midi and virtual instruments. [Supports ILGs #1,4,11; PLOs #3,4]
4. Use and apply advanced editing and mixing techniques associated with Digital Audio Workstations. [Supports ILGs #4,11; PLO #4]
5. Demonstrate their knowledge and ability to work in various roles within a recording studio environment. [Supports ILGs #1,2,4,10,11; PLOs #1,2,4,8]
6. Demonstrate the ability to work collaboratively with people from diverse backgrounds. [Supports ILGs #1,8; PLO #8]

Course-specific Institutional Learning Goals (ILG):

Institutional Learning Goal 1. Written and Oral Communication in English. Students will communicate effectively in both speech and writing.

Institutional Learning Goal 2. Mathematics. Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.

Institutional Learning Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

Institutional Learning Goal 8. Diversity and Global Perspective: Students will understand the importance of a global perspective and culturally diverse peoples

Institutional Learning Goal 10. Information Literacy: Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.

Institutional Learning Goal 11. Critical Thinking: Students will use critical thinking skills understand, analyze, or apply information or solve problems.

Program Learning Outcomes for Entertainment Technology - Music Tech AAS Program (PLO)

1. Demonstrate basic proficiency at the piano keyboard;
2. Demonstrate a working knowledge of music theory, including note reading, scale and chord construction, and the principles of voice leading and composition;
4. Create original musical compositions and record those compositions using MIDI sequencing software, a Macintosh computer and Windows-based PC, and MIDI synthesizer keyboard;
8. Demonstrate entry-level competence as a technical manager in the entertainment industry.

Units of study in detail – Unit Student Learning Outcomes:

Unit I [Understanding Roles in the Recording Studio] [Supports Course SLO #1,5]

Learning Objectives

The student will be able to:

- Explain the different roles and tasks assigned in the studio.
- Recognize how roles are assigned and the interactions of each person.
- Demonstrate understanding by performing tasks based on each role.
- Demonstrate understanding of all material by working on recording projects.

Unit II [Creating a Recording Session] [Supports Course SLOs #2,4,5]

Learning Objectives

The student will be able to:

- Demonstrate knowledge by creating appropriate session parameters for a project.
- Organize a digital recording session by creating tracks.
- Organize a recording session for playback and editing.
- Select the best method and path to save, locate, and open sessions on available hard drives.

Unit III [The Audio Recording] [Supports Course SLOs #3,4,5,6]

Learning Objectives

The student will be able to:

- Demonstrate understanding by setting up hardware and software for recording audio.

- Produce and construct tracks for recording audio in a session.
- Organize regions and audio files after recording to minimize clutter and optimize the session.

Unit IV **[Producing and Recording Live Talent]** [Supports Course SLOs #2,5,6]

Learning Objectives

The student will be able to:

- Demonstrate knowledge by collaboratively planning for live talent in the recording session.
- Solve as a team, the best method to utilize for recording the live talent.
- Prepare a multilayered session using a mix of the live talent and virtual accompanying.
- Produce a Master Mix using the necessary plug-ins to shape the final sound.
- Produce an audio CD of the final Product.
- Appraise the final product based on creativity and technical execution.

Unit V **[Mixing Techniques]** [Supports Course SLO #1,5]

Learning Objectives

The student will be able to:

- Demonstrate understanding to operate software to configure Inserts and Sends to add external signal processing tracks.
- Demonstrate ability to configure the Sends view in the Mix window to display a single send across all tracks.
- Prepare to execute the recording and edit basic automation for the mix.
- Select plug-ins to audio tracks for internal effects processing and sound shaping.

Unit VI **[Mixing Techniques II]** [Supports Course SLO #1,5]

Learning Objectives

The student will be able to:

- Select inserts and sends to add external signal processing to tracks.
- Prepare the sends view in the Mix window to display a single send across all tracks.
- Organize recording and edit basic automation for your mix.
- Use plug-ins to create internal effects processing and sound shaping.

Unit VII **[Mastering Techniques]** [Supports Course SLOs #2,3,4,5,6]

Learning Objectives

The student will be able to:

- Demonstrate knowledge by configuring files and tracks to ensure all needed effects are present.
- Choose the correct levels of each track to make sure nothing is clipping.
- Identify the correct levels to make sure the final product meets professional standard.

Evaluation of student learning: [Evaluates SLOs # 1,2,3,4,5,6]

Achievement of the course objectives will be evaluated using the following tools:

- Informal writing in course journals, documenting the student's reactions to course content, reflections on the various lectures, projects, and field trips, and thoughts on their own developing career interests.

- A test assessing students' comprehension of music technology and audio engineering terminology, and practices.
- A group project to demonstrate the students' ability to move from session planning to final production of a multilayered musical recording using live talent.
- A group project to demonstrate the students' ability to move from session planning to final production of a multilayered musical recording using virtual instruments.
- A series of laboratories using various types of production software used for audio production.

| Evaluation Tools | % of Grade |
|---|-----------------------|
| Mid-term exam | 15% |
| Laboratory assignments | 25% |
| Multilayered musical recording from an original composition | 25% |
| Multilayered musical recording using virtual instruments | 25% |
| Course journals, essays | 10% |
| Total | 100% |