



MERCER
COUNTY COMMUNITY COLLEGE

COURSE OUTLINE

Course Number MUS235	Course Title Music Composition in the Virtual Studio	Credits 3
Hours: Lecture/Lab/Other 2 lecture/2 lab	Co- or Pre-requisite Pre-requisite: MUS127, CMN253	Implementation Semester & Year Spring 2022

Catalog description:

Strategies for writing, recording, and producing music in the context of an integrated MIDI/digital audio production environment. Topics include MIDI data entry, recording live sound sources, editing, plug-ins, mixing, mastering, digital music production, generating .wav and .mp3 files, etc. Assignments include creative projects and listening/discussion of relevant "popular" and "art" music.

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. Demonstrate an understanding of the music industry and the history of recording and how changes in technology have affected music through classroom discussion and written assignments, using appropriate technological and musical terminology. [Supports ILGs #1,10; PLOs #4,5]
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 #1,2,4,6]
3. Analyze musical form in the context of recording. [Supports ILGs #1,10,11; PLOs #2,3,4]
4. Plan, construct, and record a musical composition using a digital audio workstation. The piece should include personal participation, using voice or instruments, and should use a variety of sound sources. [Supports ILGs #4,10,11; PLOs #1,2,4,6]

5. Compose, play, print, and publish music using music-notation software. [Supports ILGs #4,10,11; PLOs #1,2,4,5]
6. Apply production techniques, digital technology, and aesthetic principles in the composition of an effective orchestral score using exclusively MIDI and virtual instruments. [Supports ILGs #1,4,10; PLOs #2,4,6,7]
7. Demonstrate the ability to work collaboratively with people from diverse backgrounds. [Supports ILGs #6,8; 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 6. Humanities. Students will analyze works in the fields of art, music, or theater; literature; philosophy and/or religious studies; and/or will gain competence in the use of a foreign language.

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 Technology 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;
3. Understand the history of African American music of the 20th century and its relevance to contemporary popular music;
4. Create original musical compositions and record those compositions using MIDI sequencing software, a Macintosh computer and Windows-based PC, and MIDI synthesizer keyboard;
5. Demonstrate a working knowledge of the music business, including copyright and contract law, artist management, and marketing strategies;
6. Demonstrate entry-level professional competence as a sound technician;
7. Set up sound reinforcement equipment;
8. Demonstrate entry-level competence as a technical manager in the entertainment industry.

Units of study in detail – Unit Student Learning Outcomes:

Unit I [The Historical Background of Sound Recording] [Supports Course SLO #1]

Learning Objectives

The student will be able to:

- Explain the historical context of sound recording technology and music's role in the evolution of that technology.
- Identify and discuss important technological and artistic innovators throughout the history of sound recording.
- Differentiate between the respective roles of the musician/artist and the producer.

Unit II **[Digital Audio Basics]** [Supports Course SLOs #2,4]

Learning Objectives

The student will be able to:

- Distinguish what makes up binary math—bits and bytes.
- Describe in writing the similarities and differences between analog and digital theory and techniques.
- Demonstrate knowledge by using field-specific terminology in describing the theoretical underpinnings of digital recording, including sampling rate, quantization, and aliasing.
- Use a digital audio workstation to record and manipulate a variety of sounds.

Unit III **[Concepts and Application of Musical Forms]** [Supports Course SLOs #3,4,6]

Learning Objectives

The student will be able to:

- Define and identify the musical phrase and demonstrate the ability to link a succession of discrete phrases into a coherent musical utterance in the context of notated and recorded composition exercises.
- Differentiate among different types of musical texture (monophonic, homophonic, polyphonic, and heterophonic) in the context of short compositional exercises to be notated and recorded.
- Demonstrate knowledge of various large-scale compositional forms, including popular song forms, sonata form, rondo, and theme and variations, through analysis and the composition and recording of short pieces employing these forms.
- Describe and demonstrate the use of repetition as a compositional structuring principle, employing devices such as ostinato figures, sequential repetition, and phrase fragments.
- Demonstrate the ability to compose "programmatically," i.e., allowing an extra-musical source such as a poem, painting, story, or movie scene dictate the arc of a composition rather than a predetermined form as in objective 3.
- Organize the use of non-pitched sounds and noise combined with more traditional musical timbres into the texture of a composition in an aesthetically convincing manner.

Unit IV **[MIDI, Sequencing and Music-Notation Software]** [Supports Course SLOs #2,5,6]

Learning Objectives

The student will be able to:

- Identify the two types of MIDI-compatible tracks that the digital audio workstation provides.
- Describe the difference between sample-based operation and tick-based operation.
- Prepare a system to record MIDI data.
- Use Virtual Studio Technology (VST) and effects.
- Select a virtual instrument to play MIDI data recorded on an instrument track.
- Produce a soundtrack using MIDI and virtual instruments.
- Organize and combine MIDI applications with preexisting audio recordings.
- Prepare and compose a short piece of music using music-notation software.

Unit V **[Worlds of Music]** [Supports Course SLO #1]

Learning Objectives

The student will be able to:

- Explain a variety of genres and styles of music throughout the world.
- Recognize how the technology has united or divided different cultures and places.

Unit VI **[Studies in Electronic Music] [Supports Course SLO #1]**

Learning Objectives

The student will be able to:

- Demonstrate chronological knowledge of the development of electronic instruments.
- Classify in historical perspective the use of taped music, both in concert and in other environments.
- Define electronic music and how it has integrated with musical texture and musical culture.
- Interpret the ethical issues involved in using sounds recorded or composed by others in one's own compositions.

Unit VII **[Recording and Creating a Virtual Orchestra or Ensemble Using MIDI and Virtual Instruments] [Supports Course SLOs #2,3,4,6,7]**

Learning Objectives

The student will be able to:

- Produce in teams, a collaboratively planned project.
- Organize as a team and develop the instrumentation.
- Demonstrate knowledge by creating a multilayered session using a mix of MIDI and virtual instrumentation.
- Produce a master mix using the necessary plug-ins to shape the final sound.
- Prepare an audio CD of the final product.
- Summarize and collaboratively evaluate the final product based on creativity and technical execution.

Unit VIII **[Create and Publish an Original Musical Composition] [Supports Course SLOs #1,2,3,5,6,7]**

Learning Objectives

The student will be able to:

- Produce and compose an original piece of music using music-notation software.
- Produce and create a multilayered session of the original composition using a mix of the live talent and virtual accompaniment.
- Organize a master mix using the necessary plug-ins to shape the final sound.
- Produce an audio CD of the final product.
- Summarize and collaboratively evaluate the final product based on creativity and technical execution.
- Explain in a journal describing how the project was organized and developed and how aesthetic decisions were made.
- Produce the musical score of the composition.

Evaluation of student learning: [Evaluates SLOs # 1,2,3,4,5,6,7]

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

- Writing in course journals, documenting the student's reactions to course content, reflections on the various lectures and projects, and thoughts on his/her own developing career interests.
- A test assessing student's comprehension of music technology and audio engineering terminology and practices.

- A final CD that demonstrates the student's ability to compose music in a virtual studio, resulting in final production of a multilayered musical recording.
- A group project to demonstrate the student's ability to move from session planning to final production of a multilayered musical recording using virtual instruments.
- A series of laboratories employing 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%