



MUSI 123 - Introduction to Music Technology Course Outline

Approval Date: 03/12/2020

Effective Date: 06/08/2020

SECTION A

Unique ID Number CCC000576696
Discipline(s) Commercial Music
Drama/Theater Arts
Film Studies
Music
Theater Arts

Division Arts and Humanities

Subject Area Music

Subject Code MUSI

Course Number 123

Course Title Introduction to Music Technology

TOP Code/SAM Code 1005.00 - Commercial Music* / D - Possible
Occupational

Rationale for adding this course to the curriculum We would like to add the option of online/hybrid instruction to this course.

Units 3

Cross List N/A

Typical Course Weeks 18

Total Instructional Hours

Contact Hours

Lecture 36.00

Lab 54.00

Activity 0.00

Work Experience 0.00

Outside of Class Hours 72.00

Total Contact Hours 90

Total Student Hours 162

Open Entry/Open Exit No

Maximum Enrollment 24

Grading Option Letter Grade or P/NP

Distance Education Mode of Instruction On-Campus
Hybrid
Entirely Online
Online with Proctored Exams

SECTION B

General Education Information:

SECTION C

Course Description

Repeatability May be repeated 0 times

Catalog Description This course examines the terminology, equipment, techniques and concepts related to music technology. The course will survey the principles and practices of sound, MIDI (Musical Instrument Digital Interface), synthesis, notation, and audio recording utilizing hardware and software platforms.

Schedule Description

SECTION D

Condition on Enrollment

- 1a. **Prerequisite(s):** *None*
- 1b. **Corequisite(s):** *None*
- 1c. **Recommended:** *None*
- 1d. **Limitation on Enrollment:** *None*

SECTION E

Course Outline Information

1. Student Learning Outcomes:

- A. Students will demonstrate experience and expertise in music technology hardware and software for purposes such as recording, editing, mixing, applying audio effects, MIDI sequencing, and notation.
- B. Students will demonstrate broad knowledge of the music industry.

2. Course Objectives: Upon completion of this course, the student will be able to:

- A. Recognize and identify notational and sound capturing and manipulating audio terminology.
- B. Examine the fundamentals of sound including wavetables, frequency, amplitude and harmonic overtones.
- C. Demonstrate a conceptual and practical understanding of MIDI (Musical Instrument Digital Interface) hardware, software, and sequencing.
- D. Examine the fundamentals of synthesis techniques such as subtractive, digital, additive, wavetable and sampling.
- E. Describe the basic elements of computer music notation software and techniques.
- F. Describe the basic properties and components of audio systems.
- G. Apply music effects using software and hardware to enhance musical projects.
- H.

3. Course Content

I Sound Properties

- A. Sound waves
- B. Waveforms/wavetables

1. Frequency
 2. Amplitude
 3. Duration
- C. Harmonic overtone series

II Audio

- A. Sound equipment/hardware
1. Mixing consoles
 - a. Analog
 - b. Digital
 2. Sequencer
 3. Microphone
 4. MIDI keyboard
 5. Audio speaker
- B. Capturing/manipulating sound
1. Hardware
 2. Software

III MIDI (Musical Instrument Digital Interface)

- A. Synthesis techniques
- B. Sampling
- C. Sequencing
- D. Effects

IV Computer

- A. Hardware
- B. Software
1. Notation
 - a. Finale
 - b. Sibelius
 2. Sound editing
 - a. Garage Band
 - b. Audacity

4. Methods of Instruction:

Discussion: Discussion over reading material and instructor presentation.

Lab: Students will be expected to participate in "hands on" learning on software, hardware and audio equipment.

Lecture: Enhanced with audio-visual examples

Observation and Demonstration: Instructor and students will observe and demonstrate concepts and principles of music technology.

Online Adaptation: Activity, Directed Study, Discussion, Group Work, Individualized Instruction, Lecture

6. Methods of Evaluation: Describe the general types of evaluations for this course and provide at least two, specific examples.

Typical classroom assessment techniques

Exams/Tests -- Exams used after each section of study, to include essay questions.

Quizzes -- Quizzes on reading material.

Projects -- Test projects over sections of study, with a final project combining all elements of the courses material.

Lab Activities -- Individual projects using sound equipment and computer hardware/software.

Final Exam -- Written semester comprehensive exam.

Additional assessment information:

Final project demonstrating hardware and software knowledge.

Letter Grade or P/NP

7. Assignments: State the general types of assignments for this course under the following categories and provide at least two specific examples for each section.

A. Reading Assignments

1. Read handout on MIDI (Musical Instrument Digital Interface) focusing on historical and contemporary application. Be prepared to discuss in next class period.

2. In the Dan Hosken book, An Introduction to Music Technology, read Section II: Audio, Chapter 5 on audio hardware, and complete the suggested activities at the end of the chapter.

B. Writing Assignments

1. Using computer software and keyboard, capture sound and edit it by applying reverb and compressor effects.

2. Diagram a sound console set up for use in a live musical performance.

C. Other Assignments

D.

8. Required Materials

A. EXAMPLES of typical college-level textbooks (for degree-applicable courses) or other print materials.

Book #1:

Author: Hosken, D.
Title: An Introduction to Music Technology
Publisher: Routledge
Date of Publication: 2014
Edition: Second

Book #2:

Author: McGuire, S.
Title: Modern MIDI Sequencing and Performing Using Traditional and Mobile Tools
Publisher: Focal Press
Date of Publication: 2019
Edition: 2nd

Book #3:

Author: Huber, David Miles
Title: Modern Recording Techniques

Publisher: Routledge
Date of
Publication: 2017
Edition: 9th

B. Other required materials/supplies.