MUSC 51 Course Outline as of Fall 2023

CATALOG INFORMATION

Dept and Nbr: MUSC 51 Title: ELECTRONIC MUSIC
Full Title: Electronic Music
Last Reviewed: 2/13/2023

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	3.00	Lab Scheduled	2.00	8	Lab Scheduled	35.00
		Contact DHR	1.00		Contact DHR	17.50
		Contact Total	5.00		Contact Total	87.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00 Total Student Learning Hours: 157.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	

Catalog Description:
In this course students are introduced to the techniques and elements of electronic music production. They will produce compositions utilizing MIDI sequencing, synthesis, sampling, and effects processing in a Digital Audio Workstation (DAW).

Prerequisites/Corequisites:

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:
Description: In this course students are introduced to the techniques and elements of electronic music production. They will produce compositions utilizing MIDI sequencing, synthesis, sampling, and effects processing in a Digital Audio Workstation (DAW). (Grade Only)
Prerequisites/Corequisites:
Recommended:
Limits on Enrollment:

Transfer Credit: CSU;
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**			Effective:	Inactive:
CSU GE:	**Transfer Area**			Effective:	Inactive:
IGETC:	**Transfer Area**			Effective:	Inactive:
CSU Transfer:	Transferable	Effective:	Fall 2023	Inactive:	
UC Transfer:		Effective:		Inactive:	

CID:

Certificate/Major Applicable:
Both Certificate and Major Applicable

COURSE CONTENT

Student Learning Outcomes:
At the conclusion of this course, the student should be able to:
1. Apply a working knowledge of MIDI sequencing, synthesis, sampling, and effects processing to produce compositions on a Digital Audio workstation.

Objectives:
At the conclusion of this course, the student should be able to:
1. Demonstrate hands-on proficiency with Musical Instrument Digital Interface (MIDI) sequencing techniques.
2. Describe the methods of synthesis including subtractive, additive, Frequency Modulation (FM), wavetable, and others.
3. Create sounds utilizing various synthesis techniques.
4. Describe and demonstrate the principles of digital sampling.
5. Create compositions in a Digital Audio Workstation (DAW) using the techniques above.

Topics and Scope:

Lecture-Related Topics and Scope:
I. Overview of the Musical Instrument Digital Interface (MIDI)
II. Sequencing with Digital Audio Workstation (DAW)
  A. Basic operations
  B. Recording modes
  C. Virtual instruments
  D. Working with grooves
  E. Recording and importing audio tracks
  F. Converting audio to MIDI
  G. Workflow schemes: Freeze & Resample
  H. Elastic Audio: Warping
III. Synthesis
  A. Understanding synthesizer architecture

B. Survey of synthesizer types
1. Analog synthesis: additive and subtractive
2. Frequency Modulation (FM)
3. Wavetable
C. Building presets and working with FM operators
D. Controlling synth parameters within a DAW
E. Building a synthesizer in a modular mode

IV. Digital Sampling
A. Principles of digital sampling
B. Building an instrument in a sampler environment
C. Strategies for content within a sampler

V. Effects and Digital Signal Processing (DSP)
A. Understanding signal flow
B. Basic types of effects
1. Level: Compressors, limiters, and gates
2. Frequency: Equalizers
3. Phase: Chorus and flanging
4. Ambience: Reverb and delay
C. Using Virtual Studio Technology (VST) plugins

VI. Basics of Digital Editing
A. Destructive vs. non-destructive editing
B. Nonlinear editing
C. Spectrum editing
D. Scrubbing/jogging/shuttling
E. General editing guidelines
F. Edit Decision List (EDL)
G. Loop construction and file repair
H. File naming conventions

VII. Mixing
A. Comparing your mix to an accepted standard
B. Synthesized music mixes vs. live instrument mixes
C. Cleaning tracks and other post-production best practices

Laboratory-Related Topics and Scope:
I. Beginning-to-Intermediate-Level Usage of the Digital Audio Workstation
II. Integration of MIDI and Digital Audio Tracks
III. Mixing and Editing Techniques
IV. Signal Processing Techniques
V. Individual and/or Group Projects

Assignment:

Lecture and Lab-Related Assignments:
1. View online tutorials (1-3 hours per week).
2. Weekly lab project(s) and weekly project review.
3. Quiz(zes) (1-3) on vocabulary and technical terminology.
4. In-class discussions.
5. Final project: An original composition (minimum of 3 minutes in length) that demonstrates mastery of the concepts of the course.

Lab-Related Assignments:
1. Completion of required laboratory hours.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments and skill demonstrations are more appropriate for this course.	Writing 0 - 0%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Project(s)	Problem solving 40 - 55%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Project(s)	Skill Demonstrations 25 - 35%

Exams: All forms of formal testing, other than skill performance exams.

Quiz(zes)	Exams 10 - 25%

Other: Includes any assessment tools that do not logically fit into the above categories.

Attendance and participation; lab hours	Other Category 5 - 10%

Representative Textbooks and Materials:
Online tutorials: Groove3.com (all-access pass)
The MIDI Manual: A Practical Guide to MIDI in the Project Studio. 4th. Huber, David Miles. Routledge. 2020.
Electronic and Experimental Music: Technology, Music, and Culture. 6th. Holmes, Thom. Routledge. 2020.
Modern MIDI. 2nd. McGuire, Sam. Routledge. 2019.
Instructor prepared materials.