MUSIC184 : Electronic Music I

General Information

Author:	• Tobin Sparfeld
Course Code (CB01) :	MUSIC184
Course Title (CB02) :	Electronic Music I
Department:	MUSIC
Proposal Start:	Fall 2024
TOP Code (CB03) :	(1005.00) Commercial Music
CIP Code:	(10.0203) Recording Arts Technology/Technician.
SAM Code (CB09) :	Possibly Occupational
Distance Education Approved:	No
Will this course be taught asynchronously?:	No
Course Control Number (CB00) :	CCC000608694
Curriculum Committee Approval Date:	12/13/2023
Board of Trustees Approval Date:	01/09/2024
Last Cyclical Review Date:	12/13/2023
Course Description and Course Note:	MUSIC 184 introduces the techniques and elements of electronic music production. Students will explore analog and digital synthesis techniques and will learn to craft original sounds with these synthesis techniques. Students will also learn the principles and techniques of digital sampling and Musical Digital Instrument Interface (MIDI) sequencing, eventually creating compositions using electronic music techniques.
Justification:	Mandatory Revision
Academic Career:	• Credit
Author:	• Tobin Sparfeld

Academic Senate Discipline

Primary Discipline:	• Music
Alternate Discipline:	
Alternate Discipline:	

Course Development

Basic Skill Status (CB08)

Course is not a basic skills course.

Course Special Class Status (CB13)

Course is not a special class.

Grading Basis

• Grade with Pass / No-Pass Option

☐ Allow Students to Gain Credit by Exam/Challenge	**Pre-Collegiate Level (CB21)** Not applicable.	**Course Support Course Status (CB26)** Course is not a support course

Transferability & Gen. Ed. Options

General Education Status (CB25)

Not Applicable

Transferability	**Transferability Status**
Transferable to both UC and CSU	Approved

C-ID	Area	Status	Approval Date	Comparable Course
CMUS	Commercial Music	Approved	09/03/2019	CMUS 110 X - Electronic Music I

Units and Hours

Summary

Minimum Credit Units (CB07)	2
Maximum Credit Units (CB06)	2
Total Course In-Class (Contact) Hours	54
Total Course Out-of-Class Hours	54
Total Student Learning Hours	108

Credit / Non-Credit Options

Course Type (CB04)	**Noncredit Course Category (CB22)**	**Noncredit Special Characteristics**
Credit - Degree Applicable	Credit Course.	No Value

Course Classification Code (CB11)	**Funding Agency Category (CB23)**	☐ Cooperative Work Experience Education Status (CB10)
Credit Course.	Not Applicable.	

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	1.5	3
Laboratory Hours	1.5	0
Studio Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	0
Course In-Class (Contact) Hours	
Lecture	27

Laboratory	27
Studio	0
Total	54

Course Out-of-Class Hours	
Lecture	54
Laboratory	0
Studio	0
Total	54

Time Commitment Notes for Students

No value

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

Pre-requisites, Co-requisites, Anti-requisites and Advisories

Advisory

MUSIC177 - Introduction To Music Technology (in-development)

Objectives
- Demonstrate a working knowledge of the basic concepts and terminology of music technology.
- Explain the fundamentals of sound including waveforms, frequency, amplitude, and harmonics.

Entry Standards

Entry Standards

No value

Course Limitations

Cross Listed or Equivalent Course

No value

Specifications

Methods of Instruction

Methods of Instruction	Lecture

Methods of Instruction	Laboratory

Methods of Instruction	Discussion

Methods of Instruction	Multimedia

Methods of Instruction	Collaborative Learning

Methods of Instruction	Demonstrations

Methods of Instruction	Field Activities (Trips)

Methods of Instruction	Guest Speakers

Methods of Instruction	Presentations

Out of Class Assignments

- Reading
- Listening and analysis (e.g. listening to Dripsody and analyzing it for compositional techniques)
- Exercises (e.g. create an original patch using subtractive synthesis that can be modulated with an LFO)
- Projects (e.g. create a two minute project in a DAW that demonstrates a specific electronic composition practice using multiple synthesis techniques and effects processing)

Methods of Evaluation	Rationale
Other	Class discussion
Project/Portfolio	Midterm project evaluations
Project/Portfolio	Final cumulative project evaluation
Exam/Quiz/Test	Midterm examinations
Exam/Quiz/Test	Final examination

Textbook Rationale

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
Thom Holmes	Electronic and Experimental Music	Routledge	2020	978-1138365469

Other Instructional Materials (i.e. OER, handouts)

No Value

Materials Fee

No value

Learning Outcomes and Objectives

Course Objectives

Describe synthesis methods including subtractive, additive, frequency modulation (FM), wavetable, physical modeling, and granular.

Describe the principles of digital sampling.

Explain and demonstrate a variety of MIDI sequencing techniques.

Demonstrate various synthesis methods.

Demonstrate an ability to create original compositions and/or live performances using synthesis and/or MIDI sequencing techniques.

Explain and demonstrate effects processing in electronic music production.

Identify basic historical developments, individuals, and practices in electronic music.

SLOs

Assemble a collection of original synthesizer patches using multiple synthesis methods that demonstrates a variety of patch types.

Expected Outcome Performance: 70.0

Construct a unique and playable sampler patch that demonstrates mapping and velocity switching and is based on originally recorded sounds.

Expected Outcome Performance: 70.0

Arrange an original electronic music composition that demonstrates a specific compositional technique as well as proficiency with MIDI sequencing techniques and effects processing.

Expected Outcome Performance: 70.0

Additional SLO Information

Does this proposal include revisions that might improve student attainment of course learning outcomes?

No

Is this proposal submitted in response to learning outcomes assessment data?

No

If yes was selected in either of the above questions for learning outcomes, explain and attach evidence of discussions about learning outcomes.

No Value

SLO Evidence

No Value

Course Content

Lecture Content

History of Electronic Music (4.5 hours)
- Electronic before 1945
- Tape compositions
- Fundamental concepts of electronic music
- Analog synthesis and early synthesizers
- Digital synthesis and computer music
- Contemporary practices and styles of electronic music

Components of Synthesis (3 hours)
- Oscillators
- Filters
- Amplifiers

Modulation and Control (3 hours)
- Envelopes
- Low frequency oscillators (LFOs)
- Voltage control
- MIDI control
- Control routing
- Sequencing and gates

Synthesis Techniques (3 hours)
- Analog synthesis
- Digital synthesis
- Subtractive

- Additive
- FM (frequency modulation)
- Wavetable
- Physical modeling
- Granular

Sampling and Samplers (1.5 hours)
- Multisampling and looping
- Velocity switching
- Articulations and key switching
- Mapping

Effects Processing (4.5 hours)
- Dynamics
- Filters and equalization (EQ)
- Time and modulation effects
- Reverberation

MIDI and Sequencing (4.5 hours)
- Hardware
- Software
- Sequencing
- Editing
- Messages
- Specifications

Sound Design and Electronic Music Composition (3 hours)
- Listening and analysis of examples
- Sound design exercises Sound design projects
- Composition exercises
- Composition projects

Total hours: 27

Laboratory/Studio Content

Modulation and Control (2 hours)
- Envelopes
- Low frequency oscillators (LFOs)
- Voltage control
- MIDI control
- Control routing
- Sequencing and gates

Synthesis Techniques (2 hours)
- Analog synthesis
- Digital synthesis
- Subtractive
- Additive
- FM (frequency modulation)
- Wavetable
- Physical modeling
- Granular

Sampling and Samplers (2 hours)
- Multisampling and looping
- Velocity switching
- Articulations and key switching
- Mapping

Sound Design and Electronic Music Composition (21 hours)
- Listening and analysis of examples
- Sound design exercises
- Sound design projects
- Composition exercises
- Composition projects

Total hours: 27