MUS M05: ELECTRONIC MUSIC

Originator
nbowen

Co-Contributor(s)

Name(s)
Elliott, Brandon (belliott)

College
Moorpark College

Discipline (CB01A)
MUS - Music

Course Number (CB01B)
M05

Course Title (CB02)
Electronic Music

Banner/Short Title
Electronic Music

Credit Type
Credit

Start Term
Spring 2020

Catalog Course Description
Introduces the techniques and elements of electronic music production. Includes topics such as synthesis, sampling, and musical instrumental digital interface (MIDI) sequencing. Requires the creation of compositions utilizing electronic music techniques.

Additional Catalog Notes
Ableton Live software is required and provided in the classroom and on campus. Students may elect to use trial or education versions for home use.

Taxonomy of Programs (TOP) Code (CB03)
1005.00 - *Commercial Music

Course Credit Status (CB04)
D (Credit - Degree Applicable)

Course Transfer Status (CB05) (select one only)
B (Transferable to CSU only)

Course Basic Skills Status (CB08)
N - The Course is Not a Basic Skills Course

SAM Priority Code (CB09)
C - Clearly Occupational

Course Cooperative Work Experience Education Status (CB10)
N - Is Not Part of a Cooperative Work Experience Education Program

Course Classification Status (CB11)
Y - Credit Course

Educational Assistance Class Instruction (Approved Special Class) (CB13)
N - The Course is Not an Approved Special Class

Course Prior to Transfer Level (CB21)
Y - Not Applicable

Course Noncredit Category (CB22)
Y - Credit Course

Funding Agency Category (CB23)
Y - Not Applicable (Funding Not Used)

Course Program Status (CB24)
1 - Program Applicable

General Education Status (CB25)
Y - Not Applicable

Support Course Status (CB26)
N - Course is not a support course

Field trips
Will not be required

Grading method
Letter Graded

Alternate grading methods
Student Option- Letter/Pass
Pass/No Pass Grading

Does this course require an instructional materials fee?
No

Repeatable for Credit
No

Is this course part of a family?
No

Units and Hours

Carnegie Unit Override
No

In-Class

Lecture
Minimum Contact/In-Class Lecture Hours
35
Maximum Contact/In-Class Lecture Hours
35

Activity

Laboratory
Minimum Contact/In-Class Laboratory Hours
52.5
Maximum Contact/In-Class Laboratory Hours
52.5

Total in-Class

Total in-Class
Total Minimum Contact/In-Class Hours
87.5
Total Maximum Contact/In-Class Hours
87.5

Outside-of-Class

Internship/Cooperative Work Experience

Paid

Unpaid

Total Outside-of-Class

Total Outside-of-Class
Minimum Outside-of-Class Hours
70
Maximum Outside-of-Class Hours
70

Total Student Learning

Total Student Learning
Total Minimum Student Learning Hours
157.5
Total Maximum Student Learning Hours
157.5

Minimum Units (CB07)
3
Maximum Units (CB06)
3

Advisories on Recommended Preparation
MUS M03

Student Learning Outcomes (CSLOs)

	Upon satisfactory completion of the course, students will be able to:
1	create original music by means of synthesis, sampling, sequencing, and effects processing.
2	demonstrate a knowledge of relevant topics and social issues pertaining to current trends in electronic music.
3	apply the basics of musical instrumental digital interface (MIDI) and open sound control (OSC) routing, messages, and mapping techniques.

Course Objectives

	Upon satisfactory completion of the course, students will be able to:
1	describe the fundamental elements of digital signal processing.
2	analyze the methods of synthesis including subtractive, additive, FM, wavetable, and others.
3	describe the principles of digital sampling.
4	create prescribed sounds utilizing various synthesis techniques.
5	create compositions and/or live performances using synthesis and/or MIDI.
6	explain and demonstrate MIDI sequencing techniques.
7	create a custom software-plus-hardware musical instrument using object-oriented programming.

Course Content

Lecture/Course Content
- 10% - Physical and perceptual properties of sound
- 15% - Object-oriented programming and mapping techniques
- 10% - Effects processing
- 15% - Sequencing techniques
- 15% - MIDI and Open Sound Control (OSC) messages, routing, and architecture
- 15% - Synthesis (subtractive, additive, FM, wavetable, and others)
- 20% - Digital Signal Processing (DSP) and sampling principles

Laboratory or Activity Content
- 30% - MIDI sequencing projects
- 10% - Algorithmic composition and mapping projects
- 10% - Sampling projects, including granular synthesis as well as remix of audio files
- 20% - Software-plus-hardware instrument design
- 30% - Synthesis projects, both incorporated in digital audio workstations (DAWs) and object-oriented programming

Methods of Evaluation

Which of these methods will students use to demonstrate proficiency in the subject matter of this course? (Check all that apply):
Problem solving exercises
Skills demonstrations
Written expression

Methods of Evaluation may include, but are not limited to, the following typical classroom assessment techniques/required assignments (check as many as are deemed appropriate):
Classroom Discussion
Essay exams
Objective exams
Projects
Problem-solving exams
Participation
Reports/Papers/Journals
Skills demonstrations

Instructional Methodology

Specify the methods of instruction that may be employed in this course
Audio-visual presentations
Collaborative group work
Class activities
Class discussions
Distance Education
Demonstrations
Guest speakers
Instructor-guided use of technology
Internet research
Laboratory activities
Lecture
Small group activities

Describe specific examples of the methods the instructor will use:
- Providing individual feedback for each composition project, and grading projects
- Based on preset rubrics, peer-evaluation of group work, and skill demonstration followed by evaluation of students demonstrating the same skill

Representative Course Assignments

Writing Assignments
- Write short essay assessments.
- Interview three practicing musicians about their use of technology.
- Compose short essay response discussions about current trends in electronic music.

Critical Thinking Assignments
- Create a digital version of a classic analog synthesizer.
- Demonstrate keymapping architecture through the creation of a software synthesizer that triggers prerecorded audio samples according to MIDI velocity and pitch values.
- Generate a software-plus-hardware musical instrument using computer programming software and a variety of hardware input devices.

Reading Assignments
- Research various uses of automation within various digital audio workstations (DAW).
- Research which frequencies should be boosted within the frequency spectrum to make music compositions sound louder over speakers.

Skills Demonstrations
- Perform a composition live using push-button MIDI controller, MIDI keyboard, and/or pre-programmed faders, buttons, and knobs.
- Present a sequenced composition generated from a single audio sample, with melodic, percussive, and harmonic characteristics.

Outside Assignments

Representative Outside Assignments
- Generate original compositions using synthesis techniques.
- Attend any of the following conventions or workshops: Audio Engineering Society, National Association of Music Merchants, Society of Electro-Acoustic Music in the United States (SEAMUS) Conference, UCSB Media Arts and Technology (MAT) Seminar Series, and others.
- Research current conference proceedings and select articles for presentation to the class.

Articulation

C-ID Descriptor Number
CMUS 110X

Status
Approved

Equivalent Courses at 4 year institutions

University	Course ID	Course Title	Units
CSU San Bernardino	MUS 266	Introduction to Computer and Electronic Music	4
UC San Diego	MUS 6	Electronic Music	4

Equivalent Courses at other CCCs

College	Course ID	Course Title	Units
De Anza College	MUSI 51	Introduction to Electronic Music	3
College of San Mateo	MUS 290	Electronic Music I	3
L.A. Harbor College	MUSIC 161	Introduction to Electronic Music	3
El Camino College	Music 180	Fundamentals of Electronic Music	2
Diablo Valley College	MUSX 110	History of Electronic Music	3
College of San Mateo	MUS 290	Electronic Music I	3
LA Harbor College	MUSIC 161	Introduction to Electronic Music	3

Attach Syllabus
M05_Syllabus_F19.pdf

District General Education

A. Natural Sciences

B. Social and Behavioral Sciences

C. Humanities

D. Language and Rationality

E. Health and Physical Education/Kinesiology

F. Ethnic Studies/Gender Studies

Course is CSU transferable
Yes

CSU Baccalaureate List effective term:
FALL 2016

CSU GE-Breadth

Area A: English Language Communication and Critical Thinking

Area B: Scientific Inquiry and Quantitative Reasoning

Area C: Arts and Humanities

Area D: Social Sciences

Area E: Lifelong Learning and Self-Development

CSU Graduation Requirement in U.S. History, Constitution and American Ideals:

IGETC

Area 1: English Communication

Area 2A: Mathematical Concepts & Quantitative Reasoning

Area 3: Arts and Humanities

Area 4: Social and Behavioral Sciences

Area 5: Physical and Biological Sciences

Area 6: Languages Other than English (LOTE)

Textbooks and Lab Manuals
Resource Type
Textbook

Description
Holmes, T. (2015). *Electronic and experimental music: Technology, music, and culture,*(5th ed.).   Routledge.

Resource Type
Textbook

Description
Hosken, D. (2011). *Music technology and the project studio: Synthesis and sampling.* Routledge.

Resource Type
Textbook

Description
McGuire, S. (2019). *Modern MIDI: Sequencing and performing using traditional and mobile tools*, (2nd ed.). Routledge.

Resource Type
Textbook

Description
Shepard, B. K. (2013). *Refining sound: A practical guide to synthesis and synthesizers*. Oxford UP.

Resource Type
Websites

Description
Hochenbaum, J. (2019). Sound Production in Ableton Live for Musicians and Artistshttps://www.kadenze.com/courses/sound-production-in-ableton-live-for-musicians-and-artists.

Library Resources

Assignments requiring library resources
Background research in the area of music technology history and accompanying periods as well as investigating electronic music performance practices using the Library's print and online resources.

Sufficient Library Resources exist
Yes

Example of Assignments Requiring Library Resources
Research and write a paper comparing two different electronic music performance practices such as turntable performance and noise/feedback art.

Distance Education Addendum

Definitions

Distance Education Modalities
Hybrid (51–99% online)
Hybrid (1–50% online)
100% Online

Faculty Certifications

Faculty assigned to teach Hybrid or Fully Online sections of this course will receive training in how to satisfy the Federal and state regulations governing regular effective/substantive contact for distance education. The training will include common elements in the district-supported learning management system (LMS), online teaching methods, regular effective/substantive contact, and best practices.
Yes

Faculty assigned to teach Hybrid or Fully Online sections of this course will meet with the EAC Alternate Media Specialist to ensure that the course content meets the required Federal and state accessibility standards for access by students with disabilities. Common areas for discussion include accessibility of PDF files, images, captioning of videos, Power Point presentations, math and scientific notation, and ensuring the use of style mark-up in Word documents.
Yes

Regular Effective/Substantive Contact

Hybrid (1%–50% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Discussion reaction to assigned video modules

Hybrid (51%–99% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Other DE (e.g., recorded lectures)	Recorded lectures with accompanying skill demonstration creative assignment

100% online Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Other DE (e.g., recorded lectures)	Recorded lectures with accompanying skill demonstration creative assignment

Examinations

Hybrid (1%–50% online) Modality
Online

Hybrid (51%–99% online) Modality
Online

Primary Minimum Qualification
MUSIC

Review and Approval Dates

Department Chair
09/03/2019

Dean
09/11/2019

Technical Review
09/19/2019

Curriculum Committee
10/01/2019

DTRW-I
MM/DD/YYYY

Curriculum Committee
MM/DD/YYYY

Board
MM/DD/YYYY

CCCCO
10/07/2019

Control Number
CCC000592771

DOE/accreditation approval date
MM/DD/YYYY