

**College of San Mateo**  
**Official Course Outline**

1. **COURSE ID:** MUS. 290    **TITLE:** Electronic Music I    **C-ID:** MUS. 290+291 = CMUS 100X  
**Units:** 3.0 units    **Hours/Semester:** 32.0-36.0 Lecture hours; 48.0-54.0 Lab hours; and 64.0-72.0 Homework hours  
**Method of Grading:** Grade Option (Letter Grade or Pass/No Pass)

2. **COURSE DESIGNATION:**

**Degree Credit**

**Transfer credit:** CSU; UC

3. **COURSE DESCRIPTIONS:**

**Catalog Description:**

Learn to create, produce and record music in a variety of genres using current music technology. Gain hands-on experience in electronic music studio techniques including: digital recording, audio editing, signal processing, mixing, sampling, MIDI, synthesizers and drum machines. Acquire a historic perspective of the development of electronic music and an understanding of acoustics as applied to music production. Develop your listening skills and your appreciation for a wide variety of electronic music and for the world of sound. Great introductory course for aspiring singer/ songwriters, musicians, composers, producers, sound designers and sound artists. No previous musical experience necessary.

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**

Upon successful completion of this course, a student will meet the following outcomes:

1. Understand the basic functions and uses of various electronic music equipment including microphones, mixers, amplifiers, speakers, computer music software and hardware, MIDI synthesizers, drum machines and effects processors.
2. Mix audio tracks.
3. Record and edit high quality digital audio tracks.
4. Use MIDI (Musical Instrument Digital Interface) instruments in a musical context.
5. Create an original composition using electronic music techniques.

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**

Upon successful completion of this course, a student will be able to:

1. Understand the basic functions and uses of various electronic music equipment including microphones, mixers, amplifiers, speakers, computer music software and hardware, MIDI synthesizers, drum machines and effects processors.
2. Mix audio tracks.
3. Record and edit high quality digital audio tracks.
4. Use MIDI (Musical Instrument Digital Interface) instruments in a musical context.
5. Create an original composition using electronic music techniques.

6. **COURSE CONTENT:**

**Lecture Content:**

Topical Outline  
Acoustics and Electroacoustics  
Physics of Sound  
Transduction  
Audio Signal Flow  
Electronic Music History  
Development of Electronic Music  
Musique Concrete  
Synthesis  
Multi-tracking  
Influence of MIDI  
Recording  
Basic recording techniques and signal processing  
Mixer techniques  
Comparison of microphones

- Electronic Sound Sources
  - Drum Machines
  - Synthesizers
  - Samplers
- MIDI
  - MIDI Specification
  - MIDI Sequencing Introduction
- Electronic Music Hardware, Software in the Future
  - Algorithmic composition
  - Interactive Electronic Music
  - Experimental Electronic Musical Instruments
- Studio Planning
  - Budget
  - Equipment Evaluation
  - Design
- Electronic Music Listening
  - Historic Pieces
  - Contemporary Works
  - Student Works
- Electroacoustic Composition
  - Strategies for combining technical knowledge and creativity into a musical projects
  - Concert Production
  - Performance

## 7. REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

- A. Lecture
- B. Lab
- C. Other (Specify): 1. Lectures: incorporate presentations, discussions and analysis of contemporary and historical electronic music practices and technologies. 2. Labs: provide demonstrations and hands-on instruction in pertinent electronic music techniques including: mixing, audio editing, signal processing, sampling, MIDI sequencing, using hardware and software synthesizers and drum machines. 3. Listening Activities: musical examples of numerous electronic music genres and eras are presented and analyzed in the classroom and the lab. 4. Creative Projects: midterm and final projects give students the opportunity to combine theory, technology, and musical creativity into cohesive works. Works are critiqued by instructor and students.

## 8. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

### **Writing Assignments:**

Written reports describing the conceptual ideas and electronic music techniques used to create original projects/compositions

### **Reading Assignments:**

Chapters from textbook

Portions of equipment manuals

Articles written by composers, electronic musicians, audio engineers and producers.

### **Other Outside Assignments:**

Lab Assignments: Mixer Techniques, Field Recording, Studio Recording, Signal Processing, Hardware and Software Synthesizers, Drum Machine, Multi-tracking, Using MIDI

Creative Projects: Mixdown, Musique Concrete Project, Final Electronic Music Composition

## 9. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- A. Lab Activities
- B. Oral Presentation
- C. Quizzes
- D. Students are evaluated on the basis of: written quizzes, lab assignments, oral presentation, and creative projects.

10. **REPRESENTATIVE TEXT(S):**

Possible textbooks include:

A. Manzo, V., J.. *Foundations of Music Technology*, 1st ed. Oxford University Press, 2015

B. Ballora, M.. *Digital Audio and Acoustics for the Creative Arts*, 1st ed. Oxford University Press, 2016

**Origination Date:** November 2017

**Curriculum Committee Approval Date:** December 2017

**Effective Term:** Fall 2018

**Course Originator:** Christine Bobrowski