Syllabus: MUSI 51 Introduction to Electronic Music
Spring 2025 CRN 49145
Online 3 units

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Messages may be e-mailed to zussmanbenett@fhda.edu. ALL MESSAGES MUST INCLUDE YOUR FULL NAME, CLASS TITLE. Any messages without full name, class, & time will not be answered. Emails will be reviewed at 10 am daily. Emails after 10am will not be answered until the next day.

Office Hour: Online Monday 10 AM of by appointment by Zoom

Requisites: Advisory: EWRT 200 and READ 200, or ESL 261, 262 and 263.

Welcome to Intro to Electronic Music! This is an online class that does not have scheduled meetings. Students can log in anytime to do the required weekly course work. Students must have access to a computer, the internet and an individual email address. We recommend a laptop or desktop computer to successfully complete the course; a tablet or phone may not be adequate for all assignments and tests. Information about Canvas and Online Education Orientation can be found in Canvas on the Student Resources page: https://deanza.instructure.com/courses/3382.

Description
This course is an introduction to the use of keyboard controllers, hardware and software synthesizers and instruments, and sequencing and audio software to create music projects in a variety of styles. The course also includes basic studio techniques; an introduction to Musical Instrument Digital Interface (MIDI); an introduction to basic historical developments in electronic music; and the creation of music/audio projects using basic electronic music hardware and software. Some prior music experience is recommended but not required. This course will focus on the principles of music production using various Digital Audio Work

Student Learning Outcomes
The successful student will operate basic keyboard synthesizers, drum machines, simple mixers, and entry-level music software.

The successful student will create musical projects in a variety of styles using synthesizers, drum machines, and MIDI sequencing software.

Text and Software

Text – All Text will be provided on Canvass
Recommended: An Introduction to Music Technology, 2nd Edition by Dan Hosken
Logic Pro X by David Nahmani.

Access to a computer with any digital audio workstation (DAW), web browser, and Adobe Acrobat Reader.

1. Any DAW (Digital Audio Workstation)
   Including Pro Tools, Logic, Ableton Live, FL Studio, Cubase, Digital Performer, Reaper, GarageBand etc.

2. Screen Capture Software
   Students will be required to submit a screen capture video for some creative projects and technical assignments. Screenflow and OBS are recommended

Monitors

Speakers are the most important piece of equipment in your studio. It's great to have an assortment of speaker options,

- Full Range
- Near Field
- Auratones
- Headphones
- Earbuds

Highly recommended Solid State Drive (SSD): SAMSUNG T7 Shield 1TB, up to 1050MB/s, USB 3.2 Gen2, Rugged, IP65 Rated, for Photographers, Content Creators and Gaming, Portable External Solid State Drive (MU-PE1T0S/AM, 2022), Black

Expanded Description: Content and Form

A. Operate basic keyboard controllers and synthesizers, drum machines, and basic mixers.
   1. Keyboard synthesizers
      a. Keyboard controllers
      b. Continuous controllers
      c. Keyboard modes
      d. Voice selection
      e. Multi-timbral and polyphonic synthesizers
      f. Pitch bend and modulation controllers

2. Drum machines
    a. Drum machine sound resources
    b. Basic playback features
    c. Pattern programming
    d. Quantization and editing
    e. Song programming
    f. Uses of drum machines
3.Mixing
    a. Basic functions of mixers
    b. Audio mixers in the signal path
    c. Basic mixer controls and operation

B. Use and understand introductory-level audio, synthesis, music software, and MIDI terminology.

1. Sound generation methods
    a. Sampling
    b. Synthesis
    c. Hybrid systems
2. Introduction to computer techniques for music
    a. Launching applications
    b. Naming and saving files, use of folders and multiple volumes
    c. Copying, pasting, and cutting data
    d. Back-up and file management techniques and strategies
3. Types of electronic music applications
    a. Sequencing
    b. Audio recording and sampling
    c. Software synthesis
    d. Music notation

C. Create musical projects in a variety of styles using keyboard controllers and synthesizers, mixers, hardware/software drum machines, basic mixers, and entry-level music sequencing software tools.

1.Types of sequencing
    a. Hardware sequencers
    b. Software sequencers
2. Sequence recording and playback
    a. Instrument tracks
    b. Drum tracks
    c. Controller tracks
    d. Replace, overdub, and punch modes
    e. Real time, step, and manual entry recording methods
    f. Audio tracks

3. Basic editing techniques
    a. Graphic editing
    b. Quantizing
    c. List (alpha-numeric) editing
    d. Transposition
    e. Moving data between tracks and sequences
    f. Copying and aliasing objects
4. MIDI controllers
    a. Volume and pan
    b. Other controller types
    c. Graphic and list displays of controller data
5. Organizing musical structure
    a. Linking subsequences
    b. Editing subsequences
    c. Musical applications of subsequences
    d. Aliases and repeating musical regions
6. Software mixers
    a. Software mixers as controllers vs. hardware mixers as processors
    b. Controlling volume and panning
    c. Mixer automation
    d.Inserting effects
7. Exporting and importing data and audio files

D. Design, implement, and troubleshoot basic audio and studio equipment and software configurations.

1. MIDI terminology
2. Interconnecting electronic music devices
    a. Interconnecting synthesizers/devices
    b. Connecting devices to a computer
    c. Serial port, USB, and built-in MIDI interfaces
3.Message data types
    a. Channel messages
    b. Continuous controllers
    c. Common messages
4. Audio signal chain
    a. Instruments
    b. Mixers
    c. Amplifiers
    d. Speakers
5. Survey applications of equipment and software
    a. Live performance
    b. Studio applications
6. Troubleshoot basic electronic music studio equipment and software.

E. Recognize and describe basic historical developments in electronic music.

1. Overview of selected electronic music styles, examples of which might include
    a. Pre-World War II instruments and precursors
    b. Musique concrete, electronic music, tape music
    c."Switched-on" music
    d.Popular music
    e. Contemporary trends
2. Overview of technical developments
    a. Early instruments
    b. Tape recording
    c.Modular synthesizers
    d. Digital synthesis, recording, and sequencing
    e. Sampling
    fVirtualization of hardware

Lab Topics

A. Basic sequence: recording, editing, saving, click track

B. Combining keyboard, rhythm, and audio loop tracks

C. Assembling rhythm parts on multiple tracks

D. Re-using musical regions via loop, copy, and alias

E. Automation including volume, panning, and other parameters

F. Use of audio and MIDI effects

G. Basic editing of software instruments

H. Beat matching and synchronizing multiple audio sources

I. Integrating techniques into a final musical project

Grading

Grading:
Scale: 97-100%=A+, 93-96%=A, 90-92%=A-, 87-89%=B+, 83-86%=B, 80-82%=B-,
77-79%=C+, 70-76%=C,
67-69%=D+, 63-66%=D, 60-62%=D-, 59% and below=F
Discussion Posts (weekly): 20%
Labs: 20%
Quizzes: 10%
Participation: 10% (See below)
Midterm 20%, Final Exam: 20%

Participation: Participation means
- Being actively engaged in graded discussions
- Taking responsibility for your learning process
- Asking for help when you do not understand something
- Attending Zoom sessions

Let the instructor know immediately if you think you have received an incorrect grade. Grades may not be changed if you wait more than 72 hours after an assignment is handed back or after grades are posted on the web to bring errors to the instructor's attention.

If an emergency interferes with completion of course work near the conclusion of the term, you must contact the instructor immediately to discuss the situation, including the possibility being assigned an "incomplete" grade in the course if appropriate. If you "disappear" at the end of the course you are subject to receiving a failing grade.

Quizzes will be given several times during the term. They include questions like those on the tests and serve as reviews for these tests. Missed quizzes may not be made up, but one may be missed without penalty.

Set Canvas preferences to **receive notifications** for labs, assignments and quiz dates.

Labs – 8 lab projects using class software and hardware will be assigned weekly. Most of the labs focus on music production techniques and workflows using GarageBand, Logic Pro X, Reason and Sibelius. If you do not own those programs, you are free to use your own. You may use any digital audio workstation. (see here: DAW)

Film review/discussion- Three films about electronic music will be uploaded to Canvas in which you will write three reviews.

Writing Assignments- Four writing assignments on selected listenings and tutorials.

Final Project – Final projects are due at the scheduled final exam session. Attendance is required, so make early arrangements to avoid schedule conflicts. Final projects are worth 30% of the course grade – but failure to complete a final project may result in a failing grade for the course.

Final Exam Final projects are due at the scheduled final exam session.

Late Work

- Missed or late quizzes may not be made up, though you may miss one without lowering your grade since your lowest quiz grade is discarded.
- Make-up midterms may be possible for students who make prior arrangements or who encounter a serious and unanticipated last-minute emergency.
- Other late assignments may be penalized one letter grade for each day after the due date.

Contact the instructor immediately when you encounter technical problems while working on a lab assignment. If a technical problem interferes with your completion of a project by the due date, there may be no late penalty only if you contacted the instructor at the time the problem occurred.

Extra Credit

There is a module that offers extra credit if you fall behind or miss a lab or quiz.

Academic Integrity

Students and faculty share the goal of maintaining the highest standards of academic integrity. I take this issue very seriously, and consequences can be very serious for students who fail to observe these standards. Consult my statement on Academic Integrity for details about my official policies — and ask for guidance if you have questions.

The college academic integrity policy and student code of conduct are available at the college website.

Calendar

Some assignment deadlines are not listed in the calendar, and they will be announced on this website during the term. The schedule lists major topics. Other topics – including outside listening and reading – will be announced during the course. The schedule is subject to change.

Week 1:

1. Syllabus

2. Introduction to the Garage Band software.

3. Lab 1

Week 2:

1. Garage Band software continued.
2. MIDI recording, basic editing
3. Creating music with the iOS
4. Practica Musica and other ear training applications
5. Lab 2

Week 3:

1. Logic Software: MIDI recording, basic editing.
2. Electronic Music History Quiz 1
3. GarageBand project due: Intro to Electronic Music Assignment 1

Week 4:

1. Logic Software: controlling volume and panning, using additional tracks.
2. Film Review 1
3. Lab 4

Week 5:

1. Loop recording, aliases, copies, etc
2. Sibelius notation software
3. Lab 5

Week 6:

4. Audio loops, Creative use of Apple loops
5. Signal Flow
6. Lab 6

Week 7:

1. Logic Assignment due: Intro to Electronic Music Assignment 4
2. Lab 7

Week 8:

1. Loop recording (“cycle”) and punching in/out (“auto-punch”).
2. Film Review 2
3. Lab 8

Week 9:

1. Audio editing in Logic
2. Logic assignment due: Intro to Electronic Music Assignment 6 (date subject to change)
3. Introduction to final projects.
4. Lab 9

Week 10:

1. Electronic music history and other topics.
2. Continue work on final project.
3. Lab 10

Week 11:

1. Individual coaching via Zoom for final projects.
2. Preview of final projects.

Week 12:

Final Project

Important Dates

- April 8 First day of classes
- April 19 Last day to add classes
- April 20 Last day to drop classes without a W
- April 22 Census
- May 27 Memorial Day – no classes, campus closed
- May 31 Last day to drop with a W
- June 19 Juneteenth holiday – no classes, campus closed
- June 24-28 Final Exams
- June 29 Graduation