

# MTEC 60A: PRODUCING IN THE HOME STUDIO I

## Foothill College Course Outline of Record

Heading	Value
<b>Effective Term:</b>	Summer 2021
<b>Units:</b>	4
<b>Hours:</b>	4 lecture, 1 laboratory per week (60 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 60A.
<b>Degree &amp; Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

## Description

Design, set up and operation of an audio/video recording studio in a small environment. Space considerations, electrical requirements and acoustic treatment options. Computer requirements including processor speed, memory requirements, data storage devices and monitor selection/ placement. MIDI keyboard types and compatibility, mixer selection and setup, cable selection and care, microphone design, and USB/firewire interface options. Software programs and compatibility issues. How to produce recordings from start to finish in a home studio.

## Course Objectives

The student will be able to:

- Design an acoustic environment in an alternative space.
- Create a recording/production system using computer based software and hardware.
- Integrate MIDI keyboards and sound modules into the production system.
- Integrate non-digital equipment such as microphones and transducers into a digital production system.

## Course Content

- Basic principles of studio design and construction.
  - Acoustic treatments.
  - Voltage and wiring considerations.
- Audio hardware design and selection.
  - Analog vs. digital mixers.
  - Cables, microphones and peripheral accessories.
  - USB and Firewire audio interfaces.
- MIDI keyboards and interfaces.
- Computer design and selection.
  - Bus speed and track count.
  - Cables, microphones and peripheral accessories.
  - USB and Firewire audio interfaces.
- Software selection and use.
  - Audio based production software.
  - MIDI based production software.
  - Audio/video based production software.

## Lab Content

Lab content in online music technology courses includes:

- Lab assignments and experimentation with variances in areas such as formatting media bit rate, sample rate, and media size.
- Assignments in number of plug-ins per insert track.
- Bus assignments for efficient recording operation.
- Mastering compression settings.

## Special Facilities and/or Equipment

- When taught on campus:
  - 30 Macintosh computers.
  - 30 MIDI keyboards and MIDI interfaces.
  - 30 Avid M-Box USB audio interfaces.
  - 30 Pro Tools software installs.
  - Video projector and screen.
- When taught via Foothill Global Access:
  - On-going access to computer with email software and capabilities.
  - Email address.
  - JavaScript enabled internet browsing software.

## Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

- Evaluated studio designs
- Weekly quizzes and skills checks
- Written evaluations of software and hardware combinations
- Graded recording assignments in various formats
- Midterm and final exams

## Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

- Written assignments that analyze, compare and contrast different audio recording and editing techniques
- Designing and assembling a multitrack recording for mastering
- Producing audio projects that include edits to the basic tracks, as well as appropriate plug-ins, such as compression

## Representative Text(s) and Other Materials

Owsinski, Bobby. The Recording Engineer's Handbook, 4th ed.. 2017.

## Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

- Read the specification sheet for an audio software program and provide a written interpretation in layman's language.
- Write a tutorial on setting up various aspects of a home studio, such as the MIDI keyboard wiring matrix.

## Discipline(s)

Commercial Music