

Lecture Contact Hours: 32-36; Outside-of-Class Hours: 64-72;  
Laboratory Contact Hours: 48-54; Outside-of-Class Hours: 0;  
Total Student Learning Hours: 144-162

**CUYAMACA COLLEGE**  
**COURSE OUTLINE OF RECORD**

**Music 184 – Digital Audio Recording and Production**

2 hours lecture, 2 units  
3 hours laboratory, 1 unit  
Total units: 3 units

**Catalog Description**

In-depth presentation of digital audio recording, editing and processing. Students will learn techniques for in-studio and live recording and will record and edit new musical recordings. Students should have a basic understanding of digital audio vocabulary and basic experience with using a computer to make/record music.

**Prerequisite**

“C” grade or higher or “Pass” in MUS 120 or equivalent

**Entrance Skills**

Without the following skills, competencies and/or knowledge, students entering this course will be highly unlikely to succeed:

- 1) Familiarity with basic audio vocabulary.
- 2) Experience using a computer to create, edit and record music.
- 3) Basic understanding of music theory concepts.

**Course Content**

- 1) Career Options
  - a. Engineer
  - b. Producer
  - c. Live-Sound Reinforcement
  - d. Sound Design
- 2) Digital Audio
  - a. Analog to Digital Conversion
  - b. Sample Rates
  - c. Audio File Types
- 3) Studio Logistics
  - a. Acoustics, Sound-Proofing and Recording Rooms
  - b. Audio Hardware
  - c. Audio Software
  - d. Microphone Types
  - e. Microphone Usage and Placement Techniques
- 4) Recording Software
- 5) Software Choices
  - a. Recording Audio in Software
  - b. Editing Audio in Software
  - c. Using Effects in Software
  - d. Using Pre-Existing Material (Samples) in Software

**Course Objectives**

Students will be able to:

- 1) Identify and describe career options related to the course material.
- 2) Identify and describe the functions of the components of a recording studio.
- 3) Setup a “no-frills” DAW (Digital Audio Workstation).
- 4) Set-up microphones for optimal recording results.
- 5) Produce recordings of music played by live musicians.
- 6) Edit pre-existing recordings.
- 7) Apply and describe appropriate audio effects.
- 8) Discuss audio hardware and software choices and describe their advantages/disadvantages.
- 9) Evaluate recorded music in terms of “production quality.”

### Method of Evaluation

A grading system will be established by the instructor and implemented uniformly. Grades will be based on demonstrated proficiency in subject matter determined by multiple measurements for evaluation, one of which must be essay exams, skills demonstration or, where appropriate, the symbol system.

- 1) Written exams that measure the student’s ability to discuss career options in recording studios, identify the optimum hardware and software components in a digital recording environment, and analyze both the use of audio effects and the overall production quality of a recording.
- 2) Projects that measure the student’s ability to assemble and troubleshoot the components of a digital recording system including correct placement of microphones, employing audio effects, producing live recordings, and editing digital audio files.

### Special Materials Required of Student

USB flash drive (at least 1GB)

### Minimum Instructional Facilities

- 1) Computer lab with MIDI (musical instrument digital interface) and audio recording capabilities
- 2) Recording studio with computer-based multi-track recording and processing capabilities

### Method of Instruction

- 1) Lecture
- 2) In-class demonstration
- 3) Class projects

### Out-of-Class Assignments

- 1) **Reading:** course materials on digital vs. analog audio, sample rates, file types, microphone techniques, studio acoustics, and DAW documentation.
- 2) **Writing:** short analyses of production quality; brief explanations of hardware/software choices, microphone decisions, or DAW setups.
- 3) **Other:** project assignments performing, recording, and mixing musical examples.

### Texts and References

- 1) Required (representative examples):
  - a. Nahmani, David. *Apple Pro Training: Logic Pro: Professional Music Production*, 2<sup>nd</sup> ed. Peach Pit, 2024.
  - b. Owsinski, Bobby. *The Mixing Engineer’s Handbook*, 5<sup>th</sup> ed. Bobby Owsinski Media Group, 2022.
  - c. Owsinski, Bobby. *The Recording Engineer’s Handbook*, 5<sup>th</sup> ed. Bobby Owsinski Media Group, 2023.
- 2) Supplemental: None

### Student Learning Outcomes

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

- 1) Identify and explain the functions of the components of a project recording studio.
- 2) Use a recording studio to produce a finished, professional quality audio recording.