

**Introduction to Audio Recording and Editing (MTEC 246)**  
**Course Syllabus, Spring 2020 – 43416/43419**  
**Mondays 10-11:50AM Tuesdays 12-1:50PM G147 Lab**

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Office Hours: On UPC Campus M-T-W, and/or by appointment

**Important Registration Information**

**Enrolled or enrolling students are given ONLY the first week of instruction to add/drop an 8-week semester course.**

Please review these policies via Trojan online scheduling. No exceptions will be allowed.

**Course Description**

MTEC 246 is an 8-week semester course introducing techniques and applications of recording, editing and mixing of digitally produced sound on personal computers. Discussions will also include a study of current hardware and software required as well as standardized basic editing workflows and techniques of music, dialog, and sound effects for song, commercials and film.

**Student Course Objectives:**

- Understand Current DAW Audio Music Technology
- Create and Configure a DAW Music Production Session
- Manage the Use of Main Tools, Windows and Displays
- How to Import Audio Files and Clips Basic Workflow Techniques
- Learn Workflows with Selections and Navigate a DAW Session
- Create Audio Clips and Edit Tracks in Music and Dialog
- Record Analog Microphone Signal of Dialog Audio into DAW Session
- Learn the Basic Use of Audio Loops in Music Production Process
- Signal Process Audio Using Mixing Channel and Plug-ins
- Learn to Create Stereo Mixes Within DAW and Bounce Options
- Know Industry Standard Basic File Asset Management DATA Protocols

**Requirements, Exams and Grading Information:**

Student evaluation in MTEC 246 will consist of tests, practical lab assignments and an assigned student project. The assignments include short lab exercises and a term project. In general, students will be given one week to complete and turn in lab exercises. Assignments turned in late will be lowered one grade per week and will not be accepted beyond two weeks late. All assignments must carefully follow file management and format guidelines. Written instructions for the term project will be available via course Blackboard. But, in general, will include demonstrated and learned techniques from all course work to date.

Quizzes will be administered throughout the semester from assigned Blackboard online module content, consisting of multiple choice/answer and true/false questions. Quizzes and tests must be taken during the scheduled times and cannot be made up at later dates.

Attendance is taken each class and will count towards your final participation point grade. After one absence your overall participation grade points will be lowered one point for each additional absence. Because of the importance of hands on experience with this subject, attendance to all classes is the only method of understanding the concepts of these specialized topics.

**Grading Summary:**

ITEM	Value	Grading Criteria
1. Participation	10%	See Syllabus for details
2. Quizzes (3)	30%	Total questions possible/total % correct
3. Lab Exercises (5-6)	30%	Timely submission, complete as directed
4. Final Project	30%	Follow outline directions and timely submission

\*\*\*Please be advised anyone found surfing the web will be asked to leave the class. Before you can be readmitted to the class you must meet with the program chair.

**Class Materials: *NEEDED FOR FIRST AND ALL CLASS MEETINGS***

1. Reference headphones are required and should be brought to all classes. Must have ¼” connector or adapter. No ear buds. **Do not use headphones with built-in microphones** such as for telephones (No four-pole connectors). All assignments will be evaluated using AKG 240M or Sony MDR 7506 reference headphones or professional studio monitoring system
2. 2GB+ USB Memory Stick

**Communication:**

Please make it a daily habit to use/check your USC E-mail account. Any E-mails I send to the class will use that account. \*\*\*Please add “246” in the subject header of all emails that you send me\*\*\* This will help me to organize all the emails that I receive and respond to you more quickly.

**Blackboard:**

In addition all course materials and class grades will be posted on Blackboard (<http://blackboard.usc.edu>). For example the course syllabus can be found under Course Syllabus, Module information under Content, and exercise and project instructions under Assignments.

**Disabilities:**

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.-5:00 p.m. Monday through Friday. The phone number for DSP is 213/740-0776.

**Academic Integrity:**

Academic Integrity-Students are expected to adhere to the Academic Integrity Guidelines of USC as outlined in the current edition of SCampus. Work found to contain plagiarized or uncited materials will be referred to the USC Office of Student Conduct for review. Academic Integrity violations will result in a failing grade for submitted material and for the course, and dismissal from the Music Industry Program for majors and minors.

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## GRADING SCALE

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100 – 94	A
93 – 90	A-
89 - 87	B+
86 – 83	B
82 - 80	B-
79 - 77	C+
76 – 73	C
72 – 70	C-
69 – 67	D+
66 – 64	D
63 – 60	D-
Below 60	F

## Course Schedule

(Schedule and Content Subject to Instructor Changes)

### Week 1

#### Introduction

- DAW System Components Overview
- Opening Pro Tools session
- Overview of DAW GUI
- Saving Session
- **Lab 1 – Basic Usage and Simple Two-Track Song Editing**
- *Online Blackboard Module Assignment 1 - DAW Basics*

### Week 2

#### Editing Audio Narrative

- Basic Timeline Editing of Clips
  - Separate
  - Capture
  - Trim
  - Rename Clips
  - Batch Fades
  - Consolidate
- **Lab 2 – Pre-Recorded Narrative Dialog Editing Lab**
- *Online Blackboard Module Assignment 2 - Basic Digital Theory*

## Week 3

### Recording and Editing Audio

- Signal Flow Thru DAW System
  - Latency
  - Hardware Buffer
- Using Line and Microphone Signals
- Creating Audio Tracks
- Setting Basic Input Levels
- Normal Record Options
  - Click Setup
  - Session Tempo
  - Pre/Post Roll
  - Punch In/Out Techniques
- Importing Media into Session
  - Audio Asset
  - Movie Asset
- **Lab 3 – Student Recording of Narrative Dialog**

## Week 4

### Creating Session and Music Production Basics

- Session Parameters
- Importing Media into Session
  - Audio Loops
- Using Loops in Music Production
  - Import Loops
  - Duplicate
  - Repeat
  - TCE Trim
  - Loop Trim
- Continued Basic Editing Techniques
  - Tab to Transient
  - Direct Timeline Entry
  - Navigation Techniques
  - Viewing Techniques
- **Lab 4 – Importing Loops, Editing and Arrangement Lab**
- *Module Assignment 3 - Microphones*
- **Blackboard Online Quiz 1 - Module 1 and 2**

## Week 5

### Printing MIDI Instrument Tracks, Track Balance and Session Mixing

- Manual/Automatic Routing of MIDI Instrument Tracks to Recording Audio Tracks.
- Panning Mono and Stereo Elements
- Insert Instantiation of Channel Plug-Ins – Filters, Equalization, Dynamics/Compressor
- Demonstrate the Signal Processor Usage and Plug-In Presets
- Basic Send and Bus Routing for Signal Processing
- **Lab 5 – Mix Lab 1 - Mixing Basics (Balance)**
- *Module Assignment 4 - Processing Basics – EQ and Dynamics*

## **Week 6**

### **Mixing and Processing with Plug-Ins**

- In-Depth Spectral EQ Track Processing Techniques
- In-Depth Dynamic Track Processing Techniques
- Continued Send and Bus Routing Processing
- Master Bus Processing Techniques
  - Basic Limiter and Dither Usage
- Bouncing Session
- File Asset Management
- **Lab 6 - Mix Lab 2 – Mixing Multi-Track Song Session**

## **Week 7**

### **Additional Processing Techniques**

- **Mix Lab 2 – Continued Student Project Development**
- Final Project Development Instructor Review
- ***Blackboard Online Quiz 2: Modules 3 and 4***

## **Week 8**

### **Open Lecture/Lab - Course review**

- Final Production Submission Due
- ***Blackboard Online Quiz 3: DAW (Pro Tools) Interactive Test***