Computer Assisted Recording and Editing (MTEC 446a)  
Course Syllabus, Spring 2015

43460 - Tuesdays 10-11:50AM G147 Lab  
43461 - Tuesdays 4-5:50PM G147 Lab  
43462 - Thursdays 4-5:50PM G147 Lab

Instructor: Charles Gutierrez:  
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Office: TBD  
Office Hours: On UPC Campus T-Th, and/or by appointment

Course Description

Computer Assisted Recording is an introduction to techniques and applications of recording 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.

Requirements, Exams and Grading Information:

Student evaluation in 446a will consist of tests and practical assignments. The assignments include short exercises and one term project. In general, students will be given one week to complete and turn in 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. Instructions for the term project will be available at a later date.

Quizzes will be given throughout the semester, which consist of multiple choice questions and true/false questions covering the required chapter/lesson readings from textbook. The final will be a hands-on exam designed to test the practical skills developed during the semester. Quizzes and tests must be taken during the scheduled times and cannot be made up at a later date.

Attendance is taken each class and will count towards your final grade. After two absences your grade will be lowered 2% of participation grade 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 this specialized topic.

Grading Summary:

1. Participation 10%
2. Quizzes 20%
3. Lab Exercises 30%
4. Term DAW Mixing Project 20%
5. Final Hand’s On Exam 20%

***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:

2. Pro-Tools 11 Documentation (All) - Pro Tools 11 Docs (zip) downloadable
3. Instructor handouts and lecture notes (available on Blackboard under Course Content)
4. Reference headphones are required and should be brought to all classes. Must have ¼” connector or adapter. No ear buds. All assignments will be evaluated using AKG 240M or Sony MDR 7506 reference headphones!
5. USB Memory Stick

Communication:

Please make it a habit to use/check your USC E-mail account. Any E-mail I send to the class will use that account. ***Please add “446a” 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. 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, lecture notes under Course 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.

Class Schedule

Week 1 Introduction to Digital Audio Workstations (DAWS)
- DAW components
- Native and DSP DAW systems
- DAW Software and hardware manufacturers
- DAW system attributes and limitations
- Building a home studio guidelines
- Reading: 101 – 1
- Assignment: Discussion questions
Class Schedule cont.

Week 2 Introduction to Pro Tools sessions and the Edit window
- G147 lab computer and server guidelines
- Opening and closing Pro Tools (PTs) and PTs sessions, session file structure
- Rulers and Counters, transport and track controls
- Vertical and horizontal zooming
- Session playback and scrolling
- Selection, Grabber and Zoom tools
- Exercise 1: Navigating the Edit Window (not for grade)
- Reading: 101 – 2
- Assignment: Discussion questions

Week 3 Basic Recording Techniques
- PTs Playback Engine and H/W buffer and system latency
- Creating a PTs session: file types, sample rates and bit depth
- Creating and naming tracks, setting track inputs, phantom power
- Introduction to microphones
- Setting record levels
- PTs signal path
- Exercise 2: Recording in Pro Tools
- Reading: 101 – 3 and 4; Pro Tools 11 Essential Training chapter 4
- Assignment: Discussion questions

Week 4 Basic Editing
- Audio clip attributes and file management
- PTs Edit Modes
- Introduction to audio editing: separation, trimming, nudging
- Tab to Transients
- Making selections
- Introduction to creating and editing fades, consolidating clips
- Exercise 3: Basic Pro Tools Audio Editing
- Reading: 101 – 8; Pro Tools 11 Essential Training chapter 6

Week 5 Importing Audio
- Importing audio into PTs
- PTs Browsers
- Copy and paste audio clips
- Duplicate, repeat and loop functions
- Batch fades and crossfades
- The Smart Tool
- Exercise 4: Importing Audio Clips, Copy/Paste, Duplicate, Repeat, Loop Edit Functions
- Reading: 101 – 5 and 7; Pro Tools 11 Essential Training chapter 3

Week 6 Punch Record in PTs
- Session pre-production
- MIDI transport controls, click tracks and countoffs
- Setting tempo and meter
- Punch record and pre/post roll
- Monitoring options
- Create Marker type Memory locations
- Exercise 5:
- Reading: Lecture Notes
Class Schedule cont.

Week 7 Pro Tools Loop Record and Playlist Comping
- PTs loop record
- PTs playlists and alternate takes
- Comping a track from multiple takes
- Exercise 6: Playlist Comping
- Reading: Lecture Notes

Week 8 The Mix Window: Inserts, Sends and Groups
- Mix window overview
- Track inserts (series processing)
- Buss effects and sends (parallel processing)
- Master fader tracks
- Submixes
- Exercise 7: Insert, Sends, Bus Effects, and Submixing
- Reading: 101 – 9

Week 9 Organizing the Mix
- Relinking source files
- Color coding tracks and markers
- None type memory locations
- Tracks groups
- Setting levels and pans
- *Term Project Explanation*
- Reading: Lecture Notes

Week 10 Plug-ins
- Plug-in types
- Multi channel vs. multi mono plug-ins
- Plug-in header controls
- Saving and recalling plug-in settings
- Copy, bypass and inactivate plug-ins
- Audiosuite plug-ins
- Reading: Lecture Notes; *Pro Tools 11 Essential Training* chapter 12

Week 11 Signal Processing: EQ and Filters
- Equalization basics
- Timbre and the magic frequencies
- Filter shapes and parameters
- Parametric EQs, center frequency, Q and gain
- Basic applications
- Reading: Lecture Notes; Lynda.com *Foundations of Audio: EQ and Filters* chapters 2-3

Week 12 Signal Processing: Compression
- Compression basics
- Compression parameters, threshold, ratio, attack/release, makeup gain
- Basic applications
- Limiters
- De-essers
- Noise gates
- Reading: Lecture Notes; Lynda.com *Foundations of Audio: Compression and Dynamic Processing* chapter 2
Class Schedule cont.

Week 13 Signal Processing: Reverb and Delay; Real-time and Graphic Automation
- Reverb parameters and application
- Creating a tempo map, adding tempo markers
- Delay parameters and application
- Automation basics
- Automation breakpoints, tools
- Create, edit, copy, paste and nudge automation
- Override automation

Week 14 Bounce to Disk, File and Session Management
- Introduction to dither and noise shaping
- Bounce to disk, bounce “rules”
- Bounce parameters
- Clip management
- Archiving sessions
- Reading: Lecture Notes

Week 15 Final Project progress check
- Keyboard Shortcut Quiz (In Class)

Week 16 Final project due 5pm in the course drop box on the “Blues” Server

Week 17/18 Final Exam – See current semester USC published finals schedule for time and date.

Schedule Subject to change

*** Important Note! CSS G-147 will be closed as of 5pm on last day of study week. There will be no open lab time available after that date for the semester. There will be no exceptions to this policy. Please plan accordingly.