

# Computer Assisted Recording and Editing (MUIN 446a)

## Course Syllabus, Fall 2014

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### Instructor:

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Office: LPB 107

Office Hours: on-campus Monday/Wednesday 10 - 11:30am, Thursday 12 - 2pm; other meetings happily scheduled 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 the hardware and software required as well as editing 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 a final 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 at the beginning of class throughout the semester (3-4), which consist of multiple choice questions and true/false questions. 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 one-half 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. Final Exam	20%
4. Exercises	30% total
5. Term Project	20%

### Class Materials

1. Textbook: "Pro Tools 101: An Introduction to Pro Tools" (required, available at bookstore and Amazon.com)
2. Lynda.com videos available through BlackBoard: *Pro Tools 11 Essential Training*; Foundations of Audio series: *EQs and Filters*, *Compressions and Dynamic Processing*, *Reverb, Delay and Modulation*.

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3. Alan Parsons “Art & Science of Sound Recording” video series purchase available at [artandscienceofsound.com](http://artandscienceofsound.com) (recommended). When you register, enter USCMUS2013 in the School Registration Code area to access additional material including quizzes and tests.
4. Pro-Tools Reference Guide (free download from [http://avid.force.com/pkb/articles/en\\_US/User\\_Guide/en379111](http://avid.force.com/pkb/articles/en_US/User_Guide/en379111))
5. Instructor handouts and lecture notes (available on BlackBoard under Course Documentation)
6. Reference headphones are required and should be brought to all classes. All assignments will be evaluated using Sony MDR 7506 reference headphones!
7. USB Memory Stick

### **Communication**

Please make it a habit to use/check your USC E-mail account. Any E-mails 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 Information, lecture notes under Course Documentation, 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 Thornton School of Music majors and minors.

\*\*\*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.

### **Course Schedule**

Week 1 (8/28), 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

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- Reading: 101 – 1  
Assignment: Discussion questions
- Week 2 (9/04), 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 (9/11), 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 (9/18), 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 (9/25), 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 (10/02), Punch Record in PTs  
Session pre-production  
MIDI transport controls, click tracks and countoffs  
Setting tempo and meter

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- Punch record and pre/post roll
- Monitoring options
- Create Marker type Memory locations
- Exercise 5:
- Reading: Lecture Notes
- Week 7 (10/09), 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 (10/16), 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 (10/23), 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 (10/30), 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 (11/06), 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

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### Week 12 (11/13), 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

### Week 13 (11/20), 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

Reading: Lecture Notes, 101 – 10; Lynda.com *Foundations of Audio: Reverb* chapter 3, *Delay and Modulation* chapter 1, *Pro Tools 11 Essential Training* chapter 11

### Week 14 (11/27) Thanksgiving Holiday (class does not meet)

### Week 15 (12/04), Bounce to Disk, File and Session Management, Final Project progress check

Keyboard Shortcut Quiz (In Class)

Introduction to dither and noise shaping

Bounce to disk, bounce “rules”

Bounce parameters

Clip management

Archiving sessions

Reading: Lecture Notes

**12/07 Final project due 8pm in the course drop box on the “blues.usc.edu” Server**

**12/11 Final Exam, 2pm – 4pm**

\*\*\* Important Note! CSS G-147 will be closed as of 8pm on 12/09. There will be no open lab time after that date. There will be no exceptions to this policy. Please plan accordingly.