

**University of Colorado Denver
Lynx Summer Camp 2019
Recording Arts/Ableton Live, June 10-14**

Instructor: Lorne Bregitzer, Associate Professor. lorne.bregitzer@ucdenver.edu

Ableton Certified Trainer

Overview

This class features two components: Recording Arts and Ableton Live. Although listed as separate topics, these two topics in music technology will be melded together where students will be able to record audio and apply the samples and techniques in projects in Ableton Live. There will be instruction and hands-on instruction throughout the week. Students will use our studios and computer labs to capture and create their own recordings and compositions.

Outcomes

Students will gain a working understanding of recording, processing, editing, mixing and mastering of audio during the Recording Arts portion of the class.

Students will also understand the various workflows in Ableton Live. They will be able to work creatively in Session and Arrangement Views. They will be able to create a track from beginning to end by the end of the week.

Each day has it's own specific student outcomes for each half of the day that is listed on the schedule below.

Required Materials:

Two (2) Flash Drives. 16 gigs is a sufficient capacity. Two, because it is always important to have a backup of their work.

Recommended Material:

Headphones. Over-the-ear style with 1/8" jack with 1/4" adapter. We have headphones available, but it is beneficial to the student to use headphones that they are familiar with.

Instructor Bio:

Lorne Bregitzer is and Associate Professor at CU Denver and one of only 250 Ableton Certified Trainers in the world. He has spent years working as a professional engineer working with artists that include: eminem, D'Angelo, Method Man, Red Man, Styx, Blues Traveler, Yonder Mountain String Band, Keller Williams, TV on the Radio, The Samples, and many others. He has received a Platinum record for his work on D'Angelo's Grammy award winning record, "Voodoo". He has also authored the book "Secrets of Recording", published by Focal Press.

Lynx Camp-Recording Arts/Ableton Live Curriculum

Day	Recording Arts Curriculum	Recording Arts Hands On Activities	Recording Arts Outcomes	Ableton Live Curriculum	Ableton Live Hands On Activities	Ableton Live Outcomes
Monday	Overview of Recording Process. Signal Flow, Microphones, Software. Pro Tools introduction.	Recording instrument into Pro Tools. Minor digital editing	Understand the recording process, digital editing. Proper microphone usage and capturing audio	Overview of Ableton Live. Session vs. Arrangement View. Learn warping. Importing and triggering clips.	Create Live Set. Import prerecorded clips. Changing warping and playback settings. Launching clips and arrange in real-time	Be able to create a Live set. Adjust settings in set. Launch clips. Adjust Launch setting. Warp imported audio loops.
Tuesday	Learn about signal processing. Apply effects to captured audio. Compression, EQ, Reverb, Delay Overview	Introduction to Pro Tools. Edit captured digital audio. Use Plugins to EQ, Compress, Reverb, and Delay the audio	Have and understanding of the principles of digital audio in Pro Tools. Basic understanding of Compression, EQ, Delay, Reverb.	Overview of MIDI. Tour of main instruments in Live. Basic principles of Subtractive Music Synthesis. Importing MIDI Clips	Import MIDI clips into Set. Create MIDI tracks with Live Instruments. Wavetable, Sampler, Operator. Record, Quantize, and Edit MIDI data.	Be able to create MIDI instrument tracks. Record and edit MIDI data. Use presets. Modify presets, create and save their own synth sounds.
Wednesday	Multitrack recording techniques. Stereo microphone techniques. Recording, editing, and bouncing multitracks.	Capture, process, and edit percussion and music samples for Ableton Live.	Be able to capture, edit, and process audio samples using multiple microphones	Overview of audio effects devices in Ableton Live. Audio Effects Racks. Send and Return Effects.	Apply audio effect to Ableton Live tracks. Create and utilize send effects. Subgroup tracks for multitrack processing	Be able to understand and apply audio effects to MIDI and Audio tracks. Understand and apply appropriate Send and Return Effects.
Thursday	Mixing multitracks. Mixing techniques and automation.	Mixing a multitrack in Pro Tools. Apply automation to Pro Tools tracks.	Understand the mixing process. Be able to Mixdown a multitrack recording into a stereo mix with appropriate audio specs for mastering	Apply automation to Ableton Live in Arrangement and Clip automation. Modulation of sounds and effects.	Take clips and modulate effects and synth parameters in both the Arrangement and Session views	Have and understanding of how automation works in Ableton Live. Be able to create creative modulations for compositions.
Friday	Principles of audio mastering. Understanding consumer formats, from WAV to MP3	Master individual stereo mixes for appropriate sound and levels for professional releases.	Understand Mastering, Digital Limiting, consumer formats and distribution of audio	Finalizing and polishing an Ableton Live composition	Take Live sets and apply modulations, effects, and effects for a creative polished track.	Be able to finalize and Ableton Live composition. Use effects and mix down techniques creatively. Master a track for public release.

