MTEC 52B: MIXING & MASTERING II

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2021
Units:	4
Hours:	3 lecture, 3 laboratory per week (72 total per quarter)
Advisory:	Not open to students with credit in MUS 81G.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade (Request for Pass/No Pass)
Repeatability:	Not Repeatable

Description

Advanced mixing and mastering techniques with Pro Tools. EQ, compression, reverb, delays and tempo maps as applied to all styles of music including jazz, pop, rock, hip-hop, orchestral and electronica. Apply critical listening to mixes and enhance mixes with automation, audio plug-ins and external hardware equipment. Use multi-band compression and advancing audio processing in mastering. Study mixes of professional audio engineers and recording artists. Prepare to work in commercial production facilities and apply these techniques in a home studio. Learn professional collaboration workflows, file management and delivery to a wide range of formats including CD, DVD, MP3 and internet streaming. Although this course uses Pro Tools, the concepts and techniques can be applied to any digital audio workstation (Logic, Cubase, etc.) or any traditional analog mixing console.

Course Objectives

The student will be able to:
A. Use mixing techniques unique to jazz, pop, rock or electronica genres.
B. Mix lead and backing vocals.
C. Automate mixes.
D. Apply stylistic analysis to mixes.
E. Use EQ and dynamics processing effectively.
F. Use reverb to add acoustic space.
G. Use tempo maps, groove templates, and Beat Detective.

Course Content

A. Critical listening and mix analysis.
1. Sonic vs. stylistic reference materials.
2. Assessing raw tracks.
3. Adding EQ and dynamics.
B. Mixing acoustic music.
1. Song analysis, track analysis and session preparation.
2. Balance and panning.
3. Signal processing.
4. Automation and stereo signal processing.
C. Mixing electronic music.
1. Mixing the rhythm section.
2. Balancing vocals.
3. Mixing guitars and keyboards.
D. Mixing and mastering skills.
1. Creating tempo maps.
2. Using Beat Detective.
3. Time domain processing.
4. Creative editing.
5. Parallel compression and mix compression.

Lab Content

A. How to reduce distortion
B. Optimize gain settings
C. Monitor system setup
D. Acoustical treatments of control room, etc.
E. Other items may include subjects such as choice of plug-ins and signal processing, and peak limiter techniques for final mastering compression settings

Special Facilities and/or Equipment

A. When taught on campus:
1. Classroom with Pro Tools HD TDM recording system and 16 channel 192 interface.
2. Digital control surface.
3. 10 condenser microphones with stands, clips and cables.
4. 10 dynamic microphones with stands, clips and cables.
5. All Avid distributed plug-ins.
6. Apple Macintosh G5 with at least 2Gb of RAM and 30 inch monitor.
7. Active near field monitors.
B. When taught via Foothill Global Access:
1. On-going access to computer with email software and capabilities.
2. Email address.
3. JavaScript enabled internet browsing software.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

Pro Tools sessions that demonstrate a practical understanding of mix theory
Mastered audio files in various formats (WAV, MP3, MP4, etc.) that accurately to consumer listening environments
Tests on mixing and mastering theory

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Lecture presentations that demonstrate advanced mixing and mastering techniques with Pro Tools and other digital audio workstations
Classroom discussions that address the history and modern application of professional mixing and mastering techniques
Group presentations followed by in-class discussion and evaluation

Representative Text(s) and Other Materials

Oltheten, Wessel. Mixing with Impact: Learning to Make Musical Choices, 1st ed.. 2018.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

A. Written critiques and analyses of audio production projects including albums, soundtracks, television, video games and internet multimedia.
B. Written summaries documenting technical and artistic elements for corresponding submitted assignments and audio projects.
C. Written proposals, session logs, learning outcomes and reflections supporting submitted musical works and final master recordings.

Discipline(s)

Commercial Music