

## 275 Digital Audio. Weeks 5-6 Assignments

### Assignment 1:

Complete the in-class demo/lab mix and turn it in along with a computer screen shot of the final mix. (To get a screen shot on a Mac, press shift + apple + 3, and check the desktop for your image.)

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### Assignment 2:

Using the *other* set of basic tracks provided, mix and master *two* alternate stereo CD-quality sound files with the characteristics listed below. Also include a screen snapshot of each DAW final mix.

• **Style 1: Almost dry, personal, warm EQ, softly compressed. Melody leads the way.** (As in the Jay Newland production of *Sunrise* with *Nora Jones*.)

• **Style 2: As for a TV commercial production background, moderate to high compression, more intense reverb and echo. Rhythm section leads the way.**

### Grading Will Be Based On:

- Does it sound like the target mixes above?
- Listenable - not blaring, edgy, muddy or boomy-
- Thirty - sixty seconds is enough, but use fades.
- No *clipping*-
- Each instrument or vocal track easy to discern, *distinct* when one pays attention to it. *EQ or pass filter on every channel* as appropriate.
- Lead elements and vocals should be *easy to hear* but *not louder than necessary* over the background tracks.
- Overall left to right balance in the *stereo mix*-
- Lead elements near the stereo center, such as lead vocals, kick (bass drum) and bass guitar-
- *Compression* on at least vocals, bass, guitars-
- *Reverb* used appropriately- (preferably as a *sub-group*, if the DAW allows it.)
- Appropriate and at least slight overall *compression on the final mix*-
- Quiet/unnecessary track sections removed if appropriate-
- Turned in as MP3-

The following might not be available in Garageband:

- *Zero-point* starts and ends on any clips-
  - *Cross-fades* on transitions between clips-
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### Reading

*Chapter 6 Digital Audio Software: The Digital Audio Workstation*

What is a DAW?

Review: What do the *mute* and *solo* buttons do?

What is an *input assignment* doing?

Review: What is headroom? What is signal-to-noise ratio?

What is monitoring *latency*? How do we get around it?

How does “*non-destructive editing*” work? Does Audacity feature it?

What is a *crossfade*?

What is *automation*? Where do you find it in the software we are using in class?

What are *plug-ins*? And what are the common ones mentioned by your instructor?

How does a *compressor* work?

And, according to your instructor, in a compressor, what do threshold, ratio, gain makeup, attack, and release variables do?

And according to your instructor, what is a *limiter* and a *gate*?

What is the difference between a graphic equalizer and a parametric equalizer?

How does a *low-pass* or *high-pass filter* work? What do the numbers mean?

How does a *shelf-filter* work?

What is a *notch filter*?

What is happening in a *flanger* effect?

What is happen in in a *chorus* effect?

What does a *convolution* reverb have that a regular one does not have?

What is the difference between *mixing* and *mastering*?

What does *bouncing* mean?

In the DAW we are using for class, find the following: Transport controls, clock, where to name a track, mute, solo, pan, volume, automation, zooming/viewing controls, how to find and apply effects (reverb,, EQ, etc.) for each track, master track effects location, how to add a track and record on it.. Also how to import audio files/tracks, and export files or tracks, and get them to be mp3 format. Where do you find the record-enabling controls?

## Study Questions from Class Notes

*See the PowerPoint summaries and notes on the class web page.*

What are two expected differences between a New York, an LA, a London, or a Nashville mix?

How can you judge the quality of your mix?

Explain a “tall, deep, and wide” mix.

What are balance, panorama, dimension, and dynamics, in a mix?

What are 5 ways you can fix a problem caused by two or more tracks competing or obscuring each other?

What levels would you start with for each track as you begin to build a mix?

How do you pick which track to begin your mixing adjustments?

What is “buss compression”?

How do you set up your files before you begin a mixing project?

What do the terms wet and dry mean in a mix?

What is reverb damping, delay, bandwidth?

What is the difference between Hall, Room, and Plate reverb settings?

Why do we try to calculate delay time settings in music?

What is a limiter? When would you want to use it?

What is the fundamental difference between a compressor and a limiter?

What are all the different reasons to apply EQ to a track?

What do a low pass filter and a high pass filter actually do?

### ***More on Compressors***

What genre of sound has the least dynamic range?

What genre of sound has the most dynamic range?

What are four good reasons to use compression?

What does a multi-band compressor do that a regular compressor cannot do?

What does a noise gate do?

What does a soft-knee compressor do?