

## Challenge #6 – More EQ; Master Effects and Rendering

### *Recording, Engineering, and Mixing*

For Challenge #6, you can choose to mix any song you'd like. I've posted a new song on the student file server – one that I wrote and recorded called "Captain Captain". You may or may not like it! And there certainly are a lot of mistakes and quirks ... but this will add to the challenge of mixing it in a way that sounds good.

1. Add folder tracks to the song.
2. Adjust volume and pan levels for each track.
3. Add compression – to EVERY TRACK.
4. Add noise gates to the snare and kick drum tracks and the lead vocal.
5. Add EQ to the tracks according to the following suggested guidelines:

#### Kick Drum

- Cut @ 200-350 Hz
- Boost @ 1500 Hz "snap"
- Find and cut unpleasant frequencies

#### Snare

- High pass filter
- Low pass filter 10,000 Hz
- Boost @ 2,000-3,000 Hz
- Cut @ 300-400 Hz

#### Acoustic guitar, vocals, acoustic instruments

- High pass filter
- Drop 200-300 Hz a couple db (vary between instruments)
- Boost 800-1500 Hz, 5000 Hz (vary between instruments)

#### Electric guitars, "thick" synths, organ, electric piano

- High pass filter
- Boost 200-600 Hz (vary)
- High shelf drop @ 5,000-8,000 Hz

#### OH's

- High pass @ 800-1000 Hz
- High shelf raise @ 2000-3000 Hz

6. Add effects to your tracks – you can use the following suggestions:
  - You may need to create folder tracks in order to take advantage of stereo effects
  - Throw some vibration and autopan on electric piano
  - Think about putting some flanger or phaser on electric guitar
  - Duplicate and delay acoustic guitar/piano
  - Duplicate, delay, and pitch shift vocal (artificial double-tracking)

Use send effects to create an ambient, room atmosphere for all of the tracks on your song.

- Use 1-2 reverbs – one for drums, and one for everything else
- Use 1-2 delays – one for snare drum, and one for everything else
- Use these reverbs and delays LIGHTLY on everything in the song

On your vocal track, you can also use reverb and delay as insert effects – this will allow you to create dramatic reverb and delay effects on the vocal without having those effects influence the rest of the tracks.

7. Master channel effects and mixdown (rendering) -Refer to the notes in the document "[Master Effects and Rendering Songs](#)" on my web page. Create a mixdown of Captain Captain that you can play on a CD player or an mp3 player.