

Mixing and Mastering Internship with Expanding Sky Studios

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This summer, I had the wonderful opportunity to intern with Expanding Sky Studios. Under the leadership of the studios lead sound engineer, Will Lederer, I was able to gain hands-on experience on what it's like to run a recording studio and work with cliental. As this is my second summer with them (my first summer was funded through the CXD fund) I was able to build off of my experience and skills learned previously. Overall, I planned this summer that my time at the studio this summer would be divided into three sections: Recording, Mixing, and Mastering.

For recording, I learned how to setup microphones, instruments, and hardware to properly record the client's music. Although I have previous experience in recording music through my internship last summer, there was many things still undiscovered. For example, I had the opportunity to learn the ins and outs of a drum kit as well as what combination of microphones captivate the sound in its entirety. We have a range of high-quality microphones to choose from at the studio; Dynamic, Condenser, Surround, etc. I believe the biggest growth area in the recording section this summer came from learning how to operate the recording hardware board. Most studios nowadays work using DAWS (Digital Audio Workspaces) which allows everything to be online. However, Expanding Sky Studios tends to bring in a lot of older generation musicians. Thus, there is a desire for using old-school hardware. Although challenging at first, learning to plug manual wires to loop certain audio effects while recording live was quite rewarding.

For Mixing, I did a deep dive into specific audio effect and tools that professional sound engineers use. At first, I originally thought Mixing audio was solely working with the volume of the audio tracks. However, there is so much more involved in the post-recording process. Mixers have the ability to lineup each individual soundwave if they wanted to. We had a lot of clients who weren't able to play perfectly in time or perfectly in tune. Thus, we utilized tools to help align the audio in tempo and pitch. Additionally, Mixers have the capabilities of affecting the individual frequencies in the soundwave. There were many times were clients wanted a "low-end" or "high-end" sound. This basically means they want us to cut the high/low frequencies out of certain audio tracks to allow other audio tracks to stand out more. I also had the opportunity to learn about audio effects that affect the sound quality. Reverb, Compression, Delay, and Distortion are some of the many examples of audio effects that I learned about this summer.

For Mastering, I unfortunately could only focus on the concept as a whole. Most of the summer went into learning the concepts of Mixing as each of the 3 concepts (Recording, Mixing, and Mastering) are complex in nature. Although I didn't learn much about Mastering, I did learn that it's a crucial post-production step. Mastering affects the output of all the audio files in the project. Utilizing similar techniques in mixing such as EQ and Audio effects, mastering allows the audio to be consistent across all platforms/speakers. Without mastering, there is a high chance a song could sound amazing on headphones but horrible on speakers.

Overall, this summer was amazing, and I am very grateful for the opportunity to work with Expanding Sky Studios under Will Lederer and funded by the Nellie C. Watterson Summer Fellowship. I've gained valuable first-hand experience in my field that I would have never been able to get on my own without funding. Thank you.

Faculty Mentor: Frank Mauceri

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