

Technology Statement

The following document lists several technologies that I would use in conjunction with specific music theory course types. These technologies are in addition to standard modern classroom equipment and assume the use of projectors, audio systems, and interactive screens/whiteboards when applicable.

Course: Aural Theory (Ear-Training)

Technology: Social Media with Video Recording Capabilities

Ex.) iTunes U

The iTunes U app provides access to complete courses from leading universities and other schools — plus the world’s largest digital catalog of free education content — on a smartphone, tablet or computer. All assignments, course materials, and updates from the instructor appear in one place. Students can take course notes in class, or while playing audio or video lectures inside of iTunes U.

Use: Allows the students to record, post, and share sight-singing with the rest of the class for critique, feedback, and error detection.

Function: Enables the students to practice/test on a regular basis in a comfortable environment while encouraging interaction with their classmates.

Technology: Software Notation Program with Orchestral Sample Library

Ex.) Finale with Garritan’s Personal Orchestra

Finale is the industry standard in music notation software, enabling composers, arrangers, musicians, teachers, students and publishers to create, edit, audition, print and publish musical scores. Finale provides complete control over every aspect of the printed page, while providing full MIDI capabilities and unparalleled audio output. Finale includes an integrated collection of instrument sounds from Garritan Personal Orchestra. These instruments are professionally recorded sound samples designed to offer the highest quality playback.

Use: Allows the instructor to provide the students with easily modified examples tailored to meet the student’s individual needs with a variety of instrumentation. The software also has the ability to export audio files that can be uploaded to a course website for the students’ use outside of the classroom.

Function: Facilitate the development of aural skills in a practical and enriched manner.

Technology: Ear-Training Lab/Home Use

Ex.) Auralia

Auralia contains 41 topics, and is a comprehensive ear-training package. Auralia's teaching is based on drills, leads the user through a variety of graded exercises, and presents instant feedback. It records all results, and allows the user to sing or play answers using a microphone or MIDI keyboard. Auralia is suitable for both traditional and contemporary musicians of any age and ability.

Use: Comprehensive software suite for ear-training and aural tests. Can be used in a fixed lab location or provided to the students for practice at home.

Function: Supplements existing classroom aural skills training, at the student's own pace and schedule, in the comfort of their home.

Course: Music Theory (Written)

Technology: Formal Diagram Software

Ex.) Variations Audio Timeliner

The Variations Audio Timeliner is an audio annotation and analysis tool for creating and labeling bubble diagrams. These diagrams can be used to navigate music or other audio for detailed study. Files on the computer's hard drive in many formats, such as mp3, wav, and midi, can be connected to the timeline, diagrammed, and annotated.

Use: Tool to delineate form and structural components of musical examples in real-time to quickly determine musical relationships.

Function: Provides the student with a large-scale (and easily digestible) perspective on even the most complex of forms.

Technology: Music Theory Software

Ex.) Musition

Musition is a comprehensive music theory and fundamentals package for music students of all ages and abilities. Musition is interactive with structured drills and instant feedback. It contains 34 topics and has sophisticated record keeping features.

Use: Comprehensive software suite for music theory. May be used in the classroom or provided to the students for studying/testing at home.

Function: Supplements existing lectures and provides individual guidance for the students' studies.

Technology: Digital Score Anthology

Ex.) AVID Scorch

The Avid Scorch app transforms a tablet or mobile device into an interactive music stand, score library, and sheet music store. Using the Sibelius engine, Scorch generates interactive notation. It facilitates learning songs, adapting them to an instrument by transposing a score, changing instruments, or converting to and from guitar tab. Music Stand mode provides a performance feature.

Use: With the availability of free music scores from sources such as IMSLP, score anthologies are becoming increasingly obsolete. This application gives the student not only instant access sheet music, but also the capability to manipulate in a variety of ways.

Function: Encourages students to develop a personal connection with the music.

Course: Form and Analysis

Technology: Digital Score Anthology

Ex.) AVID Scorch

The Avid Scorch app transforms a tablet or mobile device into an interactive music stand, score library, and sheet music store. Using the Sibelius engine, Scorch generates interactive notation. It facilitates learning songs, adapting them to an instrument by transposing a score, changing instruments, or converting to and from guitar tab. Music Stand mode provides a performance feature.

Use: With the availability of free music scores from sources like IMSLP, score anthologies are becoming obsolete. This application gives the student not only the ability to instantly access sheet music, but also the capability to manipulate in a variety of ways.

Function: Encourages students to develop a personal connection with the music.

Technology: Formal Diagram Software

Ex.) Variations Audio Timeliner

The Variations Audio Timeliner is an audio annotation and analysis tool for creating and labeling bubble diagrams. These diagrams can be used to navigate music or other

audio for detailed study. Files on the computer's hard drive in many formats, such as mp3, wav, and midi, can be connected to the timeline, diagrammed, and annotated.

Use: Tool to delineate form and structural components of musical examples in real-time to quickly determine musical relationships.

Function: Provides the student with a large-scale (and easily digestible) perspective on even the most complex of forms.

Course: Recording Sound Techniques

Technology: Industry Standard Digital Audio Workstation (DAW)

Ex.) AVID Pro Tools 10

Pro Tools is a digital audio workstation platform for Microsoft Windows and Mac OS X operating systems, developed and manufactured by Avid Technology. It is widely used by professionals throughout the audio industries for recording and editing in music production, film scoring, film and television post production, musical notation and MIDI sequencing. Pro Tools can run as standalone software, or operate using a range of external A/D converters and internal PCI or PCIe audio cards with onboard DSP.

Use: Students will become familiar with recording and editing on the industry standard DAW.

Function: Enables students to incorporate the software in their own creative processes and ultimately prepare them for professional careers in music.

Technology: Industry Standard Midi Sequencer

Ex.) MOTU Digital Performer

Digital Performer is a full-featured Digital Audio Workstation/Sequencer software package published by Mark of the Unicorn (MOTU) of Cambridge, Massachusetts for the Apple Macintosh platform.

Use: Students will become familiar with the industry standard Midi Sequencer

Function: Enable the students to incorporate the software in their own creative processes and ultimately prepare them for professional careers in music.

Technology: Digital Recording Device, Portable

Ex.) Marantz PMD620 16/24 Bit Professional Handheld Digital Audio Recorder

Professional Handheld Recorder Marantz uses PMD620, a rugged yet lightweight digital recorder. The hand-held PMD620 houses two high-quality electret condenser microphones and a monitor speaker for field recording application, such as interviews, podcasting, meeting recording, and live music. The PMD620 features an intuitive layout and tactile buttons for one-hand operation, while a high-contrast organic LED (OLED) screen facilitates setup under any lighting conditions. The PMD620 uses convenient SD/SDHC cards, the most stable and commonly available type of flash media. Audio can be recorded either as uncompressed WAV files or any of three quality levels of MP3, in mono or stereo.

Use: Hands on experience with of modern professional-grade portable recording technology for field recording applications.

Function: Encourages compositional and pedagogical growth, while serving as a means of acquiring material for the student's DAW projects.

Technology: Digital Mixer

Ex.) TASCAM-TEAC America DM-3200 32-Channel Digital Mixing Console

The new TASCAM DM-3200 digital mixer contains more channels and inputs than the DM-24. The physical interface has per-channel multi-function LED ring encoders, more comprehensive DAW control, vastly improved routing flexibility, easier and robust data backup/ restore, and greatly expanded mix storage using compact flash media. The DM-3200 features 32 full-featured channels and 16 returns for a total of 48 channels at mixdown — even at its full 96kHz / 24-bit audio resolution. It has 4-band fully-parametric EQ and dynamics on every channel and two effects processors, each capable of running the built-in TC Works reverb processor. Surround mixing is available with up to 6.1-channel panning, and the optional IF-SM/DM expansion card adds surround monitoring and downmixing to the DM-3200.

Use: Hands on experience with of modern professional-grade console recording technology for studio applications.

Function: While serving as DAW controller, students will use a console to develop functional understanding and confidence for working in a sophisticated studio environment.

Conclusion

In conclusion, this document should not serve as a fixed set of technologies I would use in the classroom, but rather as an example of my enthusiasm to provide for the differing learning habits of my students. The breakneck rate at which technology improves allows for the development of breakthrough methods in

pedagogy, but as a result, a technological lifespan that quickly shifts from common use to obsolescence. Instructors, now more than ever, feel the pressure and responsibility of maintaining the balance between gaining the students attention through the 'flash' of technology and engaging them with the material in a relative and practical manner. As a result, the degree of my willingness to incorporate technology in the classroom is limited only by the usefulness of the technology to foster a productive and equitable learning environment.