

BOCES SOUTHERN WESTCHESTER

Grade Levels	Eleven and Twelve
Subject Area	Sound Production Program – Year One

5/10/16

	September	October
Topic	<p>Sound Theory & Orientation Safety Instruction & Studio Equipment Management The Music/Post Production Industry & Career Development</p> <p>Hosken, D. (2015). <i>An introduction to music technology</i>, 2nd. Ed. New York: Routledge Press. Huber, D. & Runstein, R. (2014). <i>Modern Recording Techniques</i>, 8th Ed. Burlington, MA: Focal Press.</p>	<p>Cables, Equipment & Career Development Introduction to Audio Production & ProTool Begin Chosen Project # 1</p> <p>Hosken, D. (2015). <i>An introduction to music technology</i>, 2nd. Ed. New York: Routledge Press. Huber, D. & Runstein, R. (2014). <i>Modern Recording Techniques</i>, 8th Ed. Burlington, MA: Focal Press.</p>
Concept/Skills	<p>Basics of Sound: What is Sound? Ex. Sound generation and propagation, compression and rarefaction Sound properties and waveform views Ex. Basics of hearing, hertz, pitch, frequency, loudness, amplitude, decibels and its relation to the waveform spectrum How to use and operate sound studio gear and equipment safely. Ex. Power conditioning, grounding considerations, Session set up and breakdown (on and off sequence of all electrical gear), software and hardware maintenance and updates Historical background & skills/ level of education necessary for various careers in sound production (ex. Audio Engineer; Sound Mixer; Audio Technician)</p>	<p>Cabling connections (ex. XLR-Male; XLR-Female; To TRS-Male; To XLR –Female) ProTool: Standard industry tool for the production of sound in a controlled environment Ex. Audio recording path from analog acoustic to digital audio, sample rate (introduction to the Nyquist Theorem), bit depth, file formats (lossless and lossy versions), basics of monitoring, latency, recording and playback concepts. Begin Project # 1 – Student choice of either Music Production; Creating a Music Video; Production of Public Service Announcement; Production of Radio Commercial; or Film Post-Production with teacher support in Year One.</p>
ELA Skills Integration	<p>Content vocabulary: compression, harmonics, rarefaction, sound, wave spectrum - CCLS ELA L 4, 6 History of possible personal music career – Research and write a five paragraph procedural essay - CCLS ELA RI 1, 2; W 1, 2, 4, 5, 7 Reading of text chapter & subsequent class discussion - CCLS ELA RI 1, 2, 4, 8 (N. B. Approximately 1 text chapter per week)</p>	<p>Content vocabulary: Coiling, session parameters, tracking, - CCLS ELA L 4, 6 Write a session recall post recording –CCLS ELA W 1, 2, 4, 5, 6, 7 Write a sequential paragraph listing the ProTool skills and content vocabulary learned – CCLS ELA W 1, 2, 4, 5 Reading of text chapter & subsequent class discussion - CCLS ELA RI 1, 2, 4, 8 (N. B. Approximately 1 text chapter per week)</p>
Science Skills Integration Acoustics	<p>NYSLS: Physics: Key Idea 4 (pp.12, 15-16) Physics/Acoustics: 4.3.1 Define & compare characteristics of sound vs. audio: compression vs. rarefaction; amplitude; frequency & phasing p. 12</p>	<p>NYSLS: Physics: Key Idea 4 (pp.12, 15-16) Physics/Acoustics: 4.3.1 Define & compare characteristics of sound vs. audio: compression vs. rarefaction; amplitude; frequency & phasing contd. p. 12</p>
Assessment	<p>Daily teacher classroom observations of theoretical & practical individual & group work Weekly/ monthly written exercises Rubric review by teacher of monthly practical demonstration of knowledge/ application of monthly topics/ concepts</p>	<p>Daily teacher classroom observations of theoretical & practical individual & group work Weekly/ monthly written exercises Rubric review by teacher of monthly practical demonstration of knowledge/ application of monthly topics/ concepts</p>

Grade Levels	Eleven and Twelve
Subject Area	Sound Production Program – Year One

5/10/16

	November	December
Topic	<p>Microphones: Principles & Techniques Editing & Mixing Basics</p> <p>Hosken, D. (2015). <i>An introduction to music technology, 2nd Ed.</i> New York: Routledge Press Huber, D. & Runstein, R. (2014). <i>Modern Recording Techniques, 8th Ed.</i> Burlington, MA: Focal Press.</p>	<p>Continuation of Audio Production Basics Editing & Mixing of First Project Completion of Project # 1</p> <p>Hosken, D. (2015). <i>An introduction to music technology, 2nd Ed.</i> New York: Routledge Press. Huber, D. & Runstein, R. (2014). <i>Modern Recording Techniques, 8th Ed.</i> Burlington, MA: Focal Press.</p>
Concept/Skills	<p>Naming & understanding the uses of different types of microphones (ex. Dynamic; Condenser; Ribbon) Naming & understanding the different microphone patterns (ex. Cardioid; Figure 8; Hyper cardioid; Omnidirectional) Re: editing/ mixing: Principles of manipulating & changing sound (ex. Compression, reverberation, ratio, limiter, knee, level monitoring, delay, identifying dynamic effects, equalization, principles of panning and master bus.) Continue with Project # 1 – Student choice of either Music Production; Creating a Music Video; Production of Public Service Announcement; Production of Radio Commercial; or Film Post-Production with teacher support in Year One</p>	<p>Dynamic and effects processing for manipulating & changing sound (continuation and additive virtual tools for editing and mixing) Ex. Filters (low and high pass), order significance or plug-ins, the art of where equalization and compression begins, what is distortion, mixing within a song/sound structure (drums, vocals, guitar, etc.) subtractive vs. additive equalization and revisiting of frequency spectrum.</p> <p>Completion of Project # 1 – Student choice of either Music Production; Creating a Music Video; Production of Public Service Announcement; Production of Radio Commercial; or Film Post-Production with teacher support in Year One</p>
ELA Skills Integration	<p>Content vocabulary: condenser, cardioid, dynamic, figure 8, hyper cardioid, omnidirectional, patterns, ribbon, - CCLS ELA L 4, 6 Reading of text chapter & subsequent class discussion - CCLS ELA RI 1, 2, 4, 8 (N. B. Approximately 1 text chapter per week) Reading/ outlining selected pieces of the <i>Copyright Law of the U. S. (92 Circular)</i> CCLS ELA RI 1, 1a, 2, 4; W2, 4. Construct a written proposal for utilization of studio time CCLS ELA W1, 2, 4, 5</p>	<p>Content vocabulary: commercial, editor, manipulating, producer, sound footage, distortion, plug-ins, - CCLS ELA L 4, 6 Reading of text chapter & subsequent class discussion - CCLS ELA RI 1, 2, 4, 8 (N. B. Approximately 1 text chapter per week) Presentation of Project # 1 to class & panel for rubric review CCLS ELA Sp/L 2, 4, 5</p>
Science Skills Integration Acoustics	<p>NYSLS: Physics: Key Idea 4 (pp.12, 15-16) Physics/Acoustics: 4.3.2; 4.3.5 - Draw wave characteristics of microphone patterns & determine the selective sound wave frequencies captured in microphone diaphragm(s) p. 12</p>	<p>NYSLS: Physics: Key Idea 4 (pp.12, 15-16) Physics/Acoustics: 4.3.2; 4.3.5 - Draw wave characteristics of microphone patterns & determine speed of sound wave frequencies in microphone diaphragm(s) contd.; determine changes in sound waves while being propagated through different analog mediums p. 12</p>
Assessment	<p>Daily teacher classroom observations of theoretical & practical individual & group work Weekly/ monthly written exercises Rubric review by teacher of monthly practical demonstration of knowledge/ application of monthly topics/ concepts</p>	<p>Daily teacher classroom observations of theoretical & practical individual & group work Weekly/ monthly written exercises Rubric review by teacher of monthly practical demonstration of knowledge/ application of monthly topics/ concepts</p>

Grade Levels	Eleven and Twelve
Subject Area	Sound Production Program – Year One

	January	February
Topic	<p>Sound Program Review Broadcast Principles & Techniques Begin Chosen Project # 2</p> <p>Hosken, D. (2015). <i>An introduction to music technology, 2nd</i>. Ed. New York: Routledge Press. Huber, D. & Runstein, R. (2014). <i>Modern Recording Techniques, 8th</i> Ed. Burlington, MA: Focal Press.</p>	<p>Sound Re-enforcement Advanced Sound Theory & Vocabulary</p> <p>Hosken, D. (2015). <i>An introduction to music technology, 2nd</i>. Ed. New York: Routledge Press. Huber, D. & Runstein, R. (2014). <i>Modern Recording Techniques, 8th</i> Ed. Burlington, MA: Focal Press.</p>
Concept/Skills	<p>Review of: Safety instruction; theories of sound; ProTools; audio production; microphone techniques Re: Broadcast principles: Microphone and audio techniques for the broadcast world (Ex. Field recording techniques, boom pole operation and management, basic range and operation of a shotgun microphone, pickup characteristics, stereo miking techniques, introduction of slate and field monitoring of audio/noise levels).</p> <p>Project # 2 – Student choice of either Music Production; Creating a Music Video; Production of Public Service Announcement; Production of Radio Commercial; or Film Post-Production with teacher support in Year One</p>	<p>Study of perception of sound (psychoacoustics) How the environment changes sound in the ear Ex. Auditory perception (space and direction), proximity effect theory, threshold of hearing, feeling and pain, sound reflections, parallel waves, pink noise vs. white noise, masking and tones.</p> <p>Continue with Project # 2 – Student choice of either Music Production; Creating a Music Video; Production of Public Service Announcement; Production of Radio Commercial; or Film Post-Production with teacher support in Year One</p>
ELA Skills Integration	<p>Content vocabulary: ear drum, frequency, pressure, frequency variations, vibration, - CCLS ELA L 4, 6 Reading of text chapter & subsequent class discussion - CCLS ELA RI 1, 2, 4, 8 (N. B. Approximately 1 text chapter per week) Research Project # 2 – CCLS ELA RI 1, 1a, 2, 4 Construct outline for Project # 2 for submission – CCLS ELA RI 1, 1a, 2, 4; W 2, 4, 5, 6, 8</p>	<p>Content vocabulary: air pressure, altitude, compression, environment, early reflections, acoustics, Fourier theorem, proximity effect - CCLS ELA L 4, 6 Reading of text chapter & subsequent class discussion - CCLS ELA RI 1, 2, 4, 8 (N. B. Approximately 1 text chapter per week) Cause/ effect essay: Discuss the ways in which the environment changes sound in the ear – CCLS ELA RI 1, 8; W 1, 2, 4, 5, 6, 7, 8</p>
Science Skills Integration Acoustics	<p>NYSLS: Physics: Key Idea 4 (pp.12, 15-16) Physics/Acoustics: 4.3.1; 4.3.2; 4.3.5 - Review characteristics of sound vs. audio, changes in wave pick up patterns & determining changes/effects in the speed of sound in varied environmental temperatures & conditions p. 12</p>	<p>NYSLS: Physics: Key Idea 4 (pp.12, 15-16) Physics/Acoustics: 4.3.7 – Observe/interpret differences in sound isolation as they are reflected, diffused & absorbed before reaching the microphone and/or ear p. 12</p>
Assessment	<p>Daily teacher classroom observations of theoretical & practical individual & group work Weekly/ monthly written exercises Rubric review by teacher of monthly practical demonstration of knowledge/ application of monthly topics/ concepts</p>	<p>Daily teacher classroom observations of theoretical & practical individual & group work Weekly/ monthly written exercises Rubric review by teacher of monthly practical demonstration of knowledge/ application of monthly topics/ concepts</p>

Grade Levels	Eleven and Twelve
Subject Area	Sound Production Program – Year One

	March	April
Topic	<p>Musical Instrument Digital Interface (MIDI): History & Principles Continuation of Audio Production & ProTools Techniques Completion of Project # 2</p> <p>Hosken, D. (2015). <i>An introduction to music technology, 2nd. Ed.</i> New York: Routledge Press. Huber, D. & Runstein, R. (2014). <i>Modern Recording Techniques, 8th Ed.</i> Burlington, MA: Focal Press.</p>	<p>Advanced Digital Multi-Track Applications & Principles Begin Chosen Project # 3</p> <p>Hosken, D. (2015). <i>An introduction to music technology, 2nd. Ed.</i> New York: Routledge Press. Huber, D. & Runstein, R. (2014). <i>Modern Recording Techniques, 8th Ed.</i> Burlington, MA: Focal Press.</p>
Concept/Skills	<p>MIDI: Musical Instrument Digital Interface MIDI is a widely used standard protocol for interconnecting electronic musical instruments, computers and digital computerized instruments to one another. It allows seamless communication between all devices in the digital realm. EX: History of MIDI and synthesis, software vs. analog instruments, polyphony, MIDI in, out and thru, MIDI recording, editing, basic interconnections, modulation and note messages such as velocity and key numbers.</p> <p>Completion of Project # 2 – Student choice of either Music Production; Creating a Music Video; Production of Public Service Announcement; Production of Radio Commercial; or Film Post-Production with teacher support in Year One</p>	<p>Study of advanced multi-recording & multi-editing techniques (Ex. configuring a 12 plus track instrument session) Configurations include: grouping tracks, manipulating editing and mix windows, grouped automation and multiband dynamic effects to maximize production workflow. Ex: overdubbing, sampling, quantizing, region definition and placement, mix down and effect automation, editing controller values, punching in and out of selected track(s) to correct specific audio region.</p> <p>Project # 3 – Student choice of either Music Production; Creating a Music Video; Production of Public Service Announcement; Production of Radio Commercial; or Film Post-Production with teacher support in Year One</p>
ELA Skills Integration	<p>Content vocabulary: - MIDI, configuration, core, data, function, icon, interface, module, output, port, velocity, virtual - CCLS ELA L 4, 6 Reading of text chapter & subsequent class discussion - CCLS ELA RI 1, 2, 4, 8 (N. B. Approximately 1 text chapter per week) Cause/effect essay re: the effects of MIDI on the Music industry CCLS ELA W 1, 2, 3, 4, 5, 8</p>	<p>Content vocabulary: instrument session, multi-recording, multi-editing- CCLS ELA L 4, 6 Reading of text chapter & subsequent class discussion - CCLS ELA RI 1, 2, 4, 8 (N. B. Approximately 1 text chapter per week) Write a procedural essay on how to configure a 12 track instrument session – CCLS ELA W 1, 2, 3, 4, 5, 6, 8</p>
Science Skills Integration Acoustics	<p>NYSLS: Physics: Key Idea 4 (pp.12, 15-16) Physics/Acoustics: 4.3.3; 4.3.4 – Draw & identify the different waveform oscillations (sine, sawtooth, triangle, square) while determining differentiating characteristics p. 12</p>	<p>NYSLS: Physics: Key Idea 4 (pp.12, 15-16) Physics/Acoustics: 4.3.6 Predict time and space phasing position(s) of multiple waveforms, its destructive interference & constructive solution(s) p.12</p>
Assessment	<p>Daily teacher classroom observations of theoretical & practical individual & group work Weekly/ monthly written exercises Rubric review by teacher of monthly practical demonstration of knowledge/ application of monthly topics/ concepts</p>	<p>Daily teacher classroom observations of theoretical & practical individual & group work Weekly/ monthly written exercises Rubric review by teacher of monthly practical demonstration of knowledge/ application of monthly topics/ concepts</p>

Grade Levels	Eleven and Twelve	
Subject Area	Sound Production Program – Year One	
	May	June
Topic	<p>Creating a Sound Effect/ Foley Library Mastering & Duplication</p> <p>Hosken, D. (2015). <i>An introduction to music technology</i>, 2nd. Ed. New York: Routledge Press. Huber, D. & Runstein, R. (2014). <i>Modern Recording Techniques</i>, 8th Ed. Burlington, MA: Focal Press.</p>	<p>The Business & Law of Audio Production Introduction to the Business Plan Completion of Project # 3</p> <p>Hosken, D. (2015). <i>An introduction to music technology</i>, 2nd. Ed. New York: Routledge Press. Huber, D. & Runstein, R. (2014). <i>Modern Recording Techniques</i>, 8th Ed. Burlington, MA: Focal Press.</p>
Concept/Skills	<p>Creating a personal library of sound effects, (ex. Keys rattling; door opening; knock on door). Principles include: Conjectural Sound Principle: the creation of a sound that feeds the audience's expectation while discrediting any sort of disbelief. Re-visit of Music components and principles of pitch, timbre, harmonics (overtones), loudness and rhythm. Re-visit of sound envelope components/ principles of attack, sustain, decay and release. Each principle can be used in any combination and can be modified /eliminated in any way to create or manipulate a certain sound or effect. Re: mastering/duplication: Discuss principles of balancing record/ song Ex: What is true Mastering, dither, multiband dynamic and effect processing, volumes relative to equalization and mastering control, sound files, and resolution. The process of CD burning, its changes in the industry and new media distribution.</p>	<p>Discussion of the Copyright Law of Audio Production, and the distinctions between the distribution of rights in a song, lyric or instrumental music Discussion of the "Music Business", including: Type of business (ex. prof. studio; production house; editing house) Elements of a Business Plan: Researching/writing the mission statement; identifying target customers; advertising/publicizing the business; the 4 Ps of marketing; financial statements (profit/ loss, variable/ fixed assets, long term/short term liabilities, etc.); cash flow (beginning balance, cash outflow, ending cash balance)</p> <p>Completion of Project # 3 – Student choice of either Music Production; Creating a Music Video; Production of Public Service Announcement; Production of Radio Commercial; or Film Post-Production with teacher support in Year One</p>
ELA Skills Integration	<p>Content vocabulary: principles, sound effects, - CCLS ELA L 4, 6 Reading of text chapter & subsequent class discussion - CCLS ELA RI 1, 2, 4, 8; (N. B. Approximately 1 text chapter per week) Students watch a 20-minute video & listen to all the sound effects. Each composes an essay that includes the sound effects noted, and how each one manipulates the emotion viewed in the video (How sound makes one feel as opposed to what one would see/feel if it wasn't there) CCLS ELA W 1, 2, 3, 4, 9</p>	<p>Content vocabulary: cash flow, copyright, editing house, fixed assets, instrumental, liabilities, lyric, marketing, mission statement, production house, variable assets - CCLS ELA L 4, 6 Reading of text chapter & subsequent class discussion - CCLS ELA RI 1, 2, 4, 8 (N. B. Approximately 1 text chapter per week) Researching and designing the mission statement – CCLS ELA RI 1, 1a, 2, 5, 8; W 2, 4, 7, 8</p>
Science Skills Integration Acoustics	<p>NYSLS: Physics: Key Idea 4 (pp.12, 15-16) Physics/Acoustics: 4.3.8 – Draw a diagram that represents the changes in a waveform when struck by a boundary object using music and sound envelope components p. 12</p>	<p>NYSLS: Physics: Key Idea 4 (pp.12, 15-16) Physics/Acoustics: 4.3.9 – Observe & determine what changes occur in a waveform when captured through the same microphone using different refracting angles p. 12</p>
Assessment	<p>Daily teacher classroom observations of theoretical & practical individual & group work Weekly/ monthly written exercises Rubric review by teacher of monthly practical demonstration of knowledge/ application of monthly topics/ concepts</p>	<p>Daily teacher classroom observations of theoretical & practical individual & group work Weekly/ monthly written exercises Rubric review by teacher of monthly practical demonstration of knowledge/ application of monthly topics/ concepts</p>

SW BOCES Center for Career Services
Sound Production Program
Course Outline – Years One & Two

Introduction:

The design of the Sound Production Program will be a work based learning curriculum by units of instruction and assignments. Since the sound program is sharing the space with the TV program, the day-to-day operations will be based on real life recording studios, production/editing studios and fieldwork. While the students begin with various operational functions found in typical recording and production facilities, they will also be taught the structure of business and how these facilities are managed and operated. Instructions such as copyright law, professional etiquette and technical skills will be a part of the system followed in the every day operation of their lab time.

Most commercial sound production facilities operate during a sporadic time schedule. Working early mornings and late nights, it makes it difficult to manage mimicking this facet of the audio production world. In response to this, we have a full-fledged sound production facility in conjunction with the TV department to bring the real life experience to the students. We have the latest hardware and software such as Pro Tools which is the standard audio software used in the industry. Having both programs together, we take advantage of giving the experience of creating music in a recording studio and or recording/editing sound footage for a documentary or short film. In other words we have made it possible to bring multiple professions into our facilities without the need of internships or job shadowing to receive real work experience. The purpose of the course is to give the students a well-rounded view of all aspects of sound work.

From the beginning, first year students are assigned various projects that are found in the industry. These projects will be based on pre chosen genres, themes or subject to help the creative process. Also, these will be multiple projects that will be repeated through the year. Examples of these projects are as follows.

Projects:

- **Music Production** – In this project first year students will choose a genre in which to create an original track. The student will create a layout or idea of what they want and the instructor will assist in being the head engineer. The role of assistant engineer, producer and editor for the project will be given to the student. They will assist in arranging the record, tracking, editing and mixing. Teaches them the basic ins and outs of a recording studio in every single position held. Other projects would involve bringing a band or talent, recording them in the studio and having each student create their own version of the same record.
- **Creating a Music Video** – Students in the sound program will collaborate with the TV students in order to create a music video. This will be from a track brought by the instructor or a popular record that the student must get approval from first. For first year students, they will leave the song in tact and create a story in between the video where they can record for pauses, create Foley actions and voice-overs. Second year students will create an original track or choose a mixed record per instructor's approval. They have full creative input in the video but must include as storyline or message, Foley, voice over and a remix or pause in the video.

- **Production of Public Service Announcements** – Students will work with the TV program to write, record and edit sound for public service announcements. This may include creating or recording original background music as well as editing and mixing sound sources after video has been locked. Again, the subject for the PSA will be chosen from a list of recommended themes.
- **Production of Radio Commercials** – In these project students will work together in pairs of two. They will choose a subject for a 60 second radio commercial. This is another assignment that requires the TV and Sound program to work together. One student will be tasked with managing the video and the other sound. They will write, perform and record original background music and perform voiceover narration. The student managing audio will then mix and master the project.
- **Film Post-Production** – One of the more involved and culminating projects for first year students is to replace the original soundtrack from film trailers. In this project they replace all music, sound effects and voices. They then have to create a script, track, edit, mix and master the finished project. This project reinforces what they have been learning all year but also teaches them more specific techniques on sound synchronization, Foley, ADR, original composition, voice over techniques and pedagogy, post production mix down and mastering.
- **Music and/or Post Production Portfolio (Demo Reel)** - This is a compilation of all of the students work. It will start from their first project until their last in their second year. They must create a 2-minute music or music video compilation of all their works in the program. This means mixing their projects together creating a cohesive view or sound of what they have accomplished. This is a requirement for showing your work for prospective career opportunities.

From the beginning of the first quarter, second-year students will utilize lab time as if they were operating their own business. Lab time will include advanced techniques from subjects learned in the first year but with students taking more of a leadership role in his or her projects. The first thing is to construct a proposal for the utilization of studio time, budget that time and organize project management for the project. They have to maintain tracking sheets and submit daily and weekly quarterly studio reports. They are taking the head engineer or director role by bringing in their own talent or subject. The same projects from last year will be performed but this time the entire idea or subject comes from the student. From planning to talent selection, they are responsible for the entire service provided in the project. Students have the option to work with another student as a partner in the business project. On occasion, members of bands or other talents will be brought in who want to participate in the program. By simulating real-life work-based learning experiences in-house, the student gains a more valuable experience with more in-depth exposure to various careers in the industry.

Evaluation Measures:

The instructor will perform daily observations as well as weekly and monthly written exercises and practical demonstrations of mastery knowledge of above objectives as a part of the course evaluation. Weekly quizzes will be handed out as part of their evaluation on the current subject being instructed. An oral and written presentation that includes a portfolio demonstration of all work serves as an additional evaluation measure.

General Program Instruction – Year One

1. Sound Orientation	10 Hrs.
2. Safety Techniques & Studio Gear Management	5 Hrs.
3. Vocabulary/ Definitions / Theory	25 Hrs.
4. Introduction to Audio Production & Pro Tools	40 Hrs.
5. MIDI History & Principals	40 Hrs.
6. Broadcast Principals & Techniques	50 Hrs.
7. Microphone Principles & Techniques	50 Hrs.
8. Digital Multi –Track Recording Applications & Principles	80 Hrs.
9. Sound Re-enforcement (Psychoacoustics)	30 Hrs.
10. Creating a Sound Effect/ Foley Library	40 Hrs.
11. Editing & Mixing	60 Hrs.
12. Mastering & Duplication	60 Hrs.
13. The Business & Law of Audio Production	50 Hrs.

Total Program of Study

540 Hrs.

Note: Even though each topic will be divided in the course overview by month, they will be on-going topics throughout the year.

Text:

Copyright Law of the United States (92nd circular). (2007). Washington, DC: United States Copyright Office.

Frascogna, Xavier M. & Hetherington, H. Lee. (2004). *The Business of Artist Management*, 4th ed. New York, NY: Billboard Books.

Hosken, D. (2015). *An Introduction to Music Technology*, 2nd ed. New York, NY: Routledge.

Huber, D. & Runstein, R. (2014). *Modern Recording Techniques*, 8th ed. Burlington, MA: Focal Press.

Katz, B. (2007). *Mastering Audio: The art and the science*, 2nd ed. Burlington, MA: Focal Press.