MUSIC TECHNOLOGY II

Open to all students in grades 9 -12 who have successfully completed Music Technology I, this course is designed for those seeking further knowledge and experience in Audio and Recording technology. Topics covered include: digital recording and midi sequencing; audio engineering and editing; effects processing and microphone technique; music business and commercial production. Connecting music and technology, students will use digital audio workstations, a variety of recording studio equipment and Protools music production software. This is a one-semester class that meets twice per 4 day rotation.

Prerequisite: successful completion of **Music Technology I**

Course Overview

Course Goals	Artistic Processes	Course Skill Objectives
Students will have the ability to understand and engage with music in a number of different ways, including the **creative**, **responsive** and **performative** artistic processes. They will have the ability to create, edit, and enhance music performances using both hardware and computer software. They will attain literacy in digital / audio recording.	- Create - Perform (Present/Produce) - Respond - Connect **Anchor Standards** - Generate and conceptualize artistic ideas and work - Organize and develop artistic ideas and work. - Refine and complete artistic work. - Develop and refine artistic work for presentation. - Convey meaning through the presentation of artistic work - Apply criteria to evaluate artistic work. Relate artistic ideas and works with societal, cultural and historical context to deepen understanding.	Students will be able to: - Create a musical project using midi sequencing - Record and edit music using multi track digital audio workstation (DAW). - Analyze acoustic properties. - Engineer and design sound reinforcement. - Troubleshoot and resolve signal flow audio connections. - Design and create a commercial audio production - Identify connections between music and music technology to related commercial industries and careers.

Units of Study	Assessments
I. Introduction to Protools 3 - 4 weeks II. Step Sequencing and MIDI in Protools 4 – 5 weeks III. Audio Editing in Protools 4 - 5 weeks IV. Audio Production in Protools 6 weeks	Step Sequencing in Protools • Step Sequencing • MIDI Song Sequencing Audio Editing in Protools • Audio Loop Editing • Dialogue Edit • Radio Spot Audio Production in Protools • Cover Song • Sound to Video

Step Sequencing and MIDI in Protools

Creating rhythmically organized, loop based song sequences, using music production software.

Skill Objectives

- Students will be able to operate loop based sequencing software.
- Students will be able to create measure/beat based patterns and assemble into song form

Responding *Understanding and evaluating how the arts convey meaning.*	Performing (Present/Produce) *Realizing artistic ideas and work through interpretation and presentation.*	Creating *Conceiving and developing new artistic ideas and work.*
Enduring Understanding • The personal evaluation of musical works and performances is informed by analysis, interpretation, and established criteria based on the elements of music. **Essential Question** • How do we judge the quality of musical work(s) and performances? **Process Components: Analyze, Evaluate**	**Enduring Understanding** • To express their musical ideas, musicians analyze, evaluate, and refine their performance over time through openness to new ideas, persistence, and the application of appropriate criteria. • Musicians judge performance based on criteria that vary across time, place and cultures. **Essential Questions** • How do musicians improve the quality of their performance? • When is a performance judged ready to present? **Process Components: Analyze, Rehearse, Evaluate, Refine, Present**	**Enduring Understanding** • Musicians' creative choices are influenced by their expertise, context, and expressive intent. • Musicians evaluate, and refine their work through openness to new ideas, persistence, and the application of appropriate criteria. **Essential Questions** • How do musicians make creative decisions? • How do musicians improve the quality of their creative work? **Process Components: Plan and Make, Evaluate and Refine**
Instructional Strategies/Process Projects: *Step Sequencing, Song Sequencing* • Students will analyze and understand how beats and measures are	**Instructional Strategies/Process Projects:** *Step Sequencing, Song Sequencing Using MIDI* • Students will rehearse, refine, play and record, in real time, midi	**Instructional Strategies/Process Projects:** *Step Sequencing, Song Sequencing Using MIDI* • Students will work alone or in pairs to create a short piece in verse/chorus

organized in piano roll and step sequencer format. • Students will analyze and evaluate their own projects for appropriate rhythmic alignment and accuracy, quantizing. • Students will analyze and evaluate peer projects for appropriate rhythmic alignment and accuracy.	instrument tracks using the electronic keyboard. • Students will analyze and evaluate their recordings and quantize rhythmic inaccuracies. • Students will upload projects and present to the class.	form with a minimum of 2 tracks (drums and bass) using a step sequencer, and appropriate use of grid structure and rhythmic patterns. • Students will evaluate and refine their compositions to meet project requirements. • Students will create in step time and in real time, various instrumental music tracks.

Assessments:
- Protools Step Sequencing
- Protools Song Sequencing
- Generic Project checklist

Audio Editing in Protools

Skill Objectives
- Students will be able to operate music production software.
- Students will be able to connect and set levels for various components of a digital audio workstation.
- Students will be able to record/import audio into music production software.
- Students will be able to edit audio within the digital domain.
- Students will be able to mix multiple tracks to one stereo master.

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Instructional Strategies/Process Projects: *Dialogue Edit, Radio Spot, Audio Loop Editing* Students will listen to, analyze, evaluate and refine their work based on defined project parameters	**Instructional Strategies/Process Project:** *Dialogue Edit* Students will work alone or in pairs to: record (analyze, rehearse. Evaluate, refine and present) a given script	**Instructional Strategies/Process Project:** *Radio Spot* Students will work alone or in pairs to: - Create a commercial - Record an existing radio spot adhering to a specific time length

• Students will listen to, analyze, and evaluate the work of their peers based on defined project parameters.	• edit the audio using various tools available in a digital audio workstation
	• re-arrange and refine the original script to change the meaning.
		• Add sound effects
		• Add underscore
		• Evaluate and refine their work as necessary
		• Culminate with a final mix down to a stereo audio master.
		Project: *Audio Loop Editing*
		Students will work alone or in pairs to:
		• Create a loop based composition
		• Select prerecord loops
		• Manipulate the loops to create an original 64+ measure composition that
		    o matches master tempo
		    o changes tempo
		    o changes pitch

Assessments:
- Protools Audio Loop Editing
- Protools Dialogue Edit
- Protools Radio Spot

Audio Production in Protools

Skill Objectives

- Students will record a "cover" of a popular song using a digital audio workstation.
- Students will integrate live instruments, vocals, and midi tracks in one project.
- Students will operate music production software.
- Students will record and edit midi tracks.
- Students will automate various parameters of midi/audio tracks
- Students will mix and export to stereo master

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Instructional Strategies/Process	Instructional Strategies/Process	Instructional Strategies/Process
Projects: *Cover Song, Sound to Video* • Students will listen to, analyze, evaluate and refine their work based on defined project parameters • Students will listen to, analyze, and evaluate the work of their peers based on defined project parameters	**Project:** *Cover Song* Students will work in groups to: • record and produce a "cover" of an existing popular recording • Analyze song structure for rhythmic, harmonic, melodic and textural components • Create basic rhythm tracks using midi • Rehearse, evaluate and refine their audio performance prior to recording • Record audio tracks • Refine recording through editing, processing and automation. • Present final stereo mix *The objective is to reproduce the original as closely as possible including the vocals, given student/class musical proficiency. The project culminates with a final mix down to a stereo audio master.*	**Project:** *Sound to Video* Students will work alone or in pairs to replace and create the entire audio track, including sound effects, dialogue, and music for an existing television commercial and sync it with the video in a digital audio workstation, evaluating and refining their work as necessary. • Import existing commercial • Remove audio • Create and record replacement dialogue • Create and record underscore • Create and record sound effects • Perform and record "foley" sound effects • Mix and export to stereo/video format • Present to class

Assessments:
• Protools Cover Song
• Protools Sound to Video

Music Tech II