

CTE/ROP Audio Technology 1/2

San Diego County Office of Education - Sweetwater Union High School District Pacing Guide/Course Description

Course Length: 2 Semesters	Classroom Instruction: 180 hours
SUHSD Course Number: 97253/97254	Grade Level: 9, 10, 11, 12
SDCOE Course Number: 576904	SDCOE Total Hours: 188 Hours
CBEDS Number/Title: 5769/Other Arts, Media, and Entertainment	Year of Implementation: 2011
Course Pre-requisites: Multimedia Productions	Articulation (school/credits): None
CTE Industry Sector: Arts, Media and Entertainment	CTE Pathway(s): Production and Managerial Arts
Job Titles: Recording / Live / Mixing / Post – Production Engineer, Sound Technician, Broadcast Engineer, Master Control Engineer, Audio/Visual Manager, and Audio Visual Technician	
Credential Information: Full Time Designated Subjects Career Technical Education Teaching Credential in Arts, Media and Entertainment	
Required Textbooks: None	
Course Description: This course provides entry-level and advanced training in the Art of Audio Production and mixing. Employment possibilities include Master Control Engineer, Audio/Visual Manager and Audio Visual Technician. Instruction covers the following areas: operating audio equipment such as: microphones, sound speakers, recording equipment, wires and cables, and mixing boards. Students use equipment which includes: iMac and Mac Pro computers, mixing boards, Pro Tools software, midi boxes, microphones, monitor speakers and the sound room.	

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Semester 1

Unit 1: Orientation
Unit 2: Fundamentals of the Workplace
Unit 3: What is Audio?
Unit 4: Basic Knowledge of Instruments
Unit 5: Music Theory Overview
Unit 6: Audio Recording
Unit 7: Introduction to Pro Tools
Unit 8: Pro Tools Interface
Unit 9: Audio Recording with Pro Tools
Unit 10: MIDI Overview
Unit 11: Musical Instrument Digital Interface (MIDI)
Unit 12: Hardware Systems with MIDI Productions
Unit 13: MIDI Computer Technology
Unit 14: The Electronic Musical Instrument
Unit 15: MIDI Sequencing
Unit 16: Occupational and Workplace Knowledge
Unit 17: Job Acquisitions Skills


Semester 2

Unit 18: MIDI in Pro Tools
Unit 19: Editing MIDI in Pro Tools
Unit 20: Selecting in Pro Tools
Unit 21: Mixing in Pro Tools (Overview)
Unit 22: Mixing in Pro Tools (Processors and Effects)
Unit 23: Mixing in Pro Tools (The Rough Mix)
Unit 24: Finishing the Session
Unit 25: Post Production








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<u>Semester 1 - Unit 1 – Orientation (10 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>1A - Understands course goals and objectives. 1B - Demonstrates safe production practices. 1C - Uses safe equipment operation. 1D - Demonstrates safe equipment handling.</p>	<p><u>Career Technical Education:</u> *AME/HS/ 6.2 Understand critical elements of health and safety practices related to storing, cleaning, and maintaining tools, equipment, and supplies. 6.3 Know how to take responsibility for a safe and healthy work environment. 6.4 Understand the lifestyle choices and physical preparation required to function and maintain work activities in the chosen field. 6.5 Understand the opportunities for and challenges to maintaining physical and emotional health. <u>Core Academic:</u></p>	<p>A - Orientation and Safety Procedures B - EMF / Static Electricity</p>		<p><u>Teacher Resources:</u> Osha.gov</p> <p><u>Student Resources:</u> Osha.gov</p>
<p>Suggestions/Assessments: Safety PowerPoint and Handout</p> <div style="text-align: center;">  </div> <p>Safety Test</p> <p>Comments: Students must score 100% on the Safety Test</p>				

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	factors involved in pursuing careers in music.			
<p>Suggestions/Assessments: Fundamentals of the Workplace – Audio Technology PowerPoint (includes Attitude Survey)</p>  <p>Students are given different job scenarios and asked to write how they would handle them.</p> <p>Comments:</p>				





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<u>Semester 1 - Unit 3 – What is Audio? (10 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>4E - Understands waveform, frequency and amplitude.</p> <p>4F - Understands sound judgment and quality.</p> <p>4G - Understands loudness, pitch and timbre.</p> <p>4H - Explains the anatomy of the human ear.</p>	<p><u>Career Technical Education:</u> *AME/PAP/B1.0/AP/ADV/G9-12/ (1.4) Analyze and describe significant musical events perceived and remembered in a given aural example. (1.6) Compare and contrast the use of form, both past and present, in a varied repertoire of music from diverse genres, styles, and cultures.</p> <p><u>Core Academic:</u> *S/BLS/ 9e. Students know the roles of sensory neurons, interneurons, and motor neurons in sensation, thought, and response.</p>	<p>A - Audio Theory B - Critical Listening Skills C - Auditory Perception D - The Human Hearing System</p>	<p>Frequency Octave Pure Tone Random Noise Spectrum Sweep Sound Wave Compression SPL Rarefaction Analog Digital Pitch Amplitude Pinna Binaural Hearing Ear Canal Eardrum Cochlea Ossicles Hammer (Malleus) Anvil (Incus)</p>	<p><u>Teacher Resources:</u></p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments: Critical Listening  Waveform, Amplitude and Frequency  Tones, Speech and Music  Distortion and Reverb  Review – What Is Audio? Part One  The Human Hearing System Part One – Amplifying Sound  The Human Hearing System Part Two – The Pinna to the Eardrum  Review – What Is Audio? Part Two: The Human Hearing System Unit Exam</p> <p>Comments:</p>				


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Semester 1 - Unit 4 – Basic Knowledge of Instruments (3 hours)				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>5A - Knows the instruments families, vocal ranges: soprano, alto, tenor, bass and their frequency ranges.</p> <p>5B - Understands rhythm section composing techniques.</p> <p>5C - Appreciates aesthetic qualities of ensemble production.</p>	<p><u>Career Technical Education:</u> *AME/PAP/B1.1/AP/ADV/G9-12/ (1.4) Apply a wide range of kinesthetic communication, demonstrating clarity of intent and stylistic nuance. *AME/PAP/B1.2/AP/ADV/G9-12/ (1.4) Analyze and describe significant musical events perceived and remembered in a given aural example. <u>Core Academic:</u> *S/BLS/ 9e. Students know the roles of sensory neurons, interneurons, and motor neurons in sensation, thought, and response. *VAPA/MU/PR/ 2.6 Compose music, using musical elements for expressive effect. 2.7 Compose and arrange music for voices or various acoustic or digital/electronic instruments, using appropriate ranges for traditional sources of sound.</p>	<p>A - Families of Instruments: woodwinds, brass, electronic, percussion, strings and vocal ranges</p> <p>B - Composing tendencies.</p> <p>C - Ensemble, Balance and Blend</p>		<p><u>Teacher Resources:</u> Music Theory For Computer Musicians, Hewitt, Michael 2008</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments: Instruments and Music PowerPoint Activity: Download song lyrics from the Internet and identify the verse, bridge and chorus of the song (NOTE: Be sure students do not download lyrics with the sections already identified) Music Appreciation Writing: Choose a genre of music and research its connection to either to European Classical or African Music. Using MLA format, write a comparison / contrast of the chosen genres. Unit Exam</p> <p>Comments:</p>				



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<u>Semester 1 - Unit 5 – Music Theory Overview (6 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>6A - Explains the rudiments of rhythm.</p> <p>6B - Understands time signatures.</p> <p>6C - Plays the major scale on Piano.</p> <p>6D - Understands basic chord structure.</p> <p>6E - Demonstrates entry level piano keyboard skills.</p>	<p><u>Career Technical Education:</u></p> <p><u>Core Academic:</u> *VAPA/MU/PR/</p> <p>2.6 Compose music, using musical elements for expressive effect.</p> <p>2.7 Compose and arrange music for voices or various acoustic or digital/electronic instruments, using appropriate ranges for traditional sources of sound.</p>	<p>A - Rhythm</p> <p>B - Time</p> <p>C - Scales</p> <p>D - Arpeggios</p> <p>E - Keyboard Performance</p>	<p>Rhythm</p> <p>Pulse</p> <p>Tempo</p> <p>Beat Length</p> <p>Relative Beat Length</p> <p>Time Signature</p> <p>Dotted / Whole / Half</p> <p>Quarter / Eighth and Sixteenth Notes</p> <p>Octave</p> <p>Fundamental</p> <p>Harmonic /</p> <p>Enharmonic</p> <p>Flat / Sharp</p> <p>Scale / Major / Minor / Chromatic /</p> <p>Pentatonic</p> <p>Melody / Harmony</p> <p>Chord / Triad</p> <p>Interval</p> <p>Whole / Half Step</p> <p>Tone / Semitone</p> <p>Perfect 4th / 5th</p> <p>Arpeggio</p> <p>Tonic / Dominant / Sub-Dominant</p>	<p><u>Teacher Resources:</u></p> <p>Music Theory For Computer Musicians, Hewitt, Michael 2008</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments:</p> <p>Rhythm and Time PowerPoint  / Rhythm and Time Worksheet</p> <p>Notes and Scales PowerPoint  / Notes Worksheet / Scales Worksheet</p> <p>Keyboard Performance (Chords and Arpeggios) PowerPoints   / Chords and Arpeggios Worksheet / Triads: Major to Minor Worksheet / Triads: Minor to Major Worksheet</p> <p>Worksheet: Note Values</p> <p>Unit Exam</p> <p>Comments:</p> <p>Music theory is not a prerequisite. Most students had difficulty with scales, chords and arpeggios.</p>				

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<u>Semester 1 - Unit 6 – Audio Recording (5 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>8A - Knows the history and evolution of audio recording.</p> <p>9A - Understands analog recording.</p> <p>9B - Understands analog to digital conversion.</p> <p>9C - Understands sample rate and frequency response.</p> <p>9D - Understands bit depth and amplitude resolution.</p> <p>9E - Understands computer based recorders.</p> <p>9F - Understands Stand Alone Recorders.</p> <p>9G - Understands the technological advances in audio recording.</p>	<p><u>Career Technical Education:</u></p> <p>*AME/TC/</p> <p>4.1 Understand past, present, and future technological advances as they relate to a chosen pathway.</p> <p>4.7 Understand how technology can reinforce, enhance, or alter products and performances</p> <p>*AME/MDAP/</p> <p>A2.2 Know the component steps and skills required to design, edit, and produce a production for audio, video, electronic, or printed presentation.</p> <p>A2.3 Use technology to create a variety of audio, visual, written, and electronic products and presentations.</p> <p><u>Core Academic:</u></p>	<p>A – The evolution of recording from analog to digital</p> <p>B- Analog Sound</p> <p>C - Digital Recording</p>	<p>Waveform</p> <p>Frequency</p> <p>Amplitude</p> <p>Amplitude Resolution</p> <p>Sample</p> <p>Sample Rate</p> <p>Bit</p> <p>Bit Depth</p> <p>Distortion</p>	<p><u>Teacher Resources:</u></p> <p>Pro Tools 101 Official Courseware, 3rd Ed., Digidesign and Frank D. Cook 2006</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments:</p> <p>Introduction to Pro Tools PowerPoint </p>				
<p>Comments:</p>				

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<u>Semester 1 - Unit 7 – Introduction to Pro Tools (7 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>3B - Explains a studio recording.</p> <p>8B - Defines preproduction.</p> <p>10A - Demonstrates knowledge of file types and proper file organization.</p> <p>10B - Understands the correct way to power a digital recording studio.</p> <p>10C - Understands the demands of a host based processing.</p> <p>10D - Understands how to modify Hardware Buffer Size.</p> <p>10E - Understands how to modify CPU Usage Limit.</p>	<p><u>Career Technical Education:</u> *AME/CPM/ 3.1 Know the personal qualifications, interests, aptitudes, knowledge, and skills necessary to succeed in careers. *AME/TC/ 4.2 Understand the use of technological resources to gain access to, manipulate, and produce information, products, and services. *IT/TKS/ 10.6 Understand the interrelationships between hardware components and supportive software. <u>Core Academic:</u></p>	<p>A - File Management B - Powering Up C - Optimizing Computer</p>	<p>Condenser Dynamic Ribbon PZM XLR TRS Transducer Cardioid Hypercardioid Supercardioid Bi-Directional Omnidirectional Capacitor</p>	<p><u>Teacher Resources:</u> Pro Tools 101 Official Courseware, 3rd Ed., Digidesign and Frank D. Cook 2006</p> <p>Working With Beats in Pro Tools: Skill Pack, Hagerman, Andrew 2007</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments: Introduction to Pro Tools PowerPoint  / Pro Tools Method One DVD – Creating Sessions Microphone and Cables </p> <p>Comments: Students had difficulty with microphone recording patterns.</p>				


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<u>Semester 1 - Unit 8 – Pro Tools Interface (8 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>11A - Demonstrates knowledge of software interface menu structure.</p> <p>11B - Demonstrates knowledge of all functions of main Pro Tools windows.</p> <p>11C - Understands edit tools and functions.</p> <p>11D - Demonstrates knowledge edit modes and functions.</p> <p>11E - Demonstrates knowledge transport window and MIDI controls.</p> <p>11F - Demonstrates knowledge of creating a Session in Pro Tools.</p> <p>11G - Understands file types, sample rate, I/O settings and bit depth.</p> <p>11H - Understands track type, track format and time base.</p> <p>11I - Understands playback and edit cursor, playback points and scrolling options.</p> <p>11J - Understands saving, locating and opening sessions.</p>	<p><u>Career Technical Education:</u> *IT/TKS/ 10.6 Understand the interrelationships between hardware components and supportive software. *IT/ISSP/ A7.1 Know common industry-standard software and its applications. <u>Core Academic:</u></p>	<p>A - The Menu Structure B - Main Pro Tools Windows C - Editing Tools D - Edit Modes E - Transport Window F - Creating a Session in Pro Tools G - Session Parameters H - Tracks I - Cursor J - Sessions</p>	<p>Shuffle Slip Spot Grid Zoom Trim Selector Grabber Scrubber Pencil Smart tool Transport Counters Regions Insert Send Pan Automation Bandwidth Bit Resolution Gain Stage Attenuation</p>	<p><u>Teacher Resources:</u> Pro Tools 101 Official Courseware, 3rd Ed., Digidesign and Frank D. Cook 2006</p> <p>Working With Beats in Pro Tools: Skill Pack, Hagerman, Andrew 2007</p> <p><u>Student Resources:</u></p>

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Suggestions/Assessments:

Introduction to Pro Tools PowerPoint  / Pro Tools Method One DVD – Creating Sessions / Find Your Files Exercise


Pro Tools – Edit Window  - Exercises Included / Edit Window Quiz

Pro Tools – Mix Window  / Signal Routing Exercise and Worksheet / Mix Window Quiz


Pro Tools – Inserts and Sends  / Exercises Included

Comments:


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<u>Semester 1 - Unit 9 – Audio Recording with Pro Tools (15 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>12A - Understands Audio storage organization.</p> <p>12B - Understands disk space window.</p> <p>12C - Understands how to check and troubleshoot hardware connections.</p> <p>12D - Understands recording enabling tracks.</p> <p>12E - Demonstrates knowledge of setting input path, level and pan.</p> <p>12F - Recognizes the distinction between audio files and regions.</p> <p>12G - Understands file format, bit resolution, sample rate and file format.</p> <p>12H - Demonstrates audio editing techniques.</p> <p>12I - Demonstrates recording an Audio Session in Pro Tools.</p>	<p><u>Career Technical Education:</u> *IT/ISSP/ A2.4 Know appropriate documentation support for information systems.</p> <p><u>Core Academic:</u></p>	<p>A - Storage</p> <p>B - Disk Space</p> <p>C - Troubleshooting Hardware</p> <p>D - Record Enable</p> <p>E - Signal Path</p> <p>F - Audio Files and Regions</p> <p>G - Importing Audio</p> <p>H - Editing Audio</p> <p>I - Recording an Audio Session</p>		<p><u>Teacher Resources:</u> Pro Tools 101 Official Courseware, 3rd Ed., Digidesign and Frank D. Cook 2006</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments: Introduction to Pro Tools PowerPoint </p>				
<p>Comments: This unit includes a lot of hands-on recording of guest artists and classmates.</p>				


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<u>Semester 1 - Unit 10 – MIDI Overview (2 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>14A - Understands the evolution of MIDI.</p> <p>14B - Understands what MIDI is in the studio.</p> <p>14C - Understands MIDI within audio-for-video and film.</p> <p>14D - Understands MIDI in the live performance.</p>	<p><u>Career Technical Education:</u> *AME/TC/ 4.1 Understand past, present, and future technological advances as they relate to a chosen pathway. *AME/ELR/ 8.4 Adhere to the copyright and intellectual property laws and regulations, and use and cite proprietary information appropriately. *AME/MDAP/ A2.2 Know the component steps and skills required to design, edit, and produce a production for audio, video, electronic, or printed presentation. A2.3 Use technology to create a variety of audio, visual, written, and electronic products and presentations <u>Core Academic:</u></p>	<p>A - A brief history.</p>	<p>MIDI MIDI In / Out / Thru Interface MIDI Channel Multitimbral Exporting Importing Virtual Instrument Local Off / On Bars Beats Tempo Ticks Absolute Relative</p>	<p><u>Teacher Resources:</u> Pro Tools 101 Official Courseware, 3rd Ed., Digidesign and Frank D. Cook 2006</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments: MIDI One PowerPoint </p> <p>Comments:</p>				


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<u>Semester 1 - Unit 11 – Musical Instrument Digital Interface (MIDI) (2 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>15A - Defines MIDI. 15B - Utilizes MIDI channels. 15C - Understands MIDI Modes. 15D - Understands Chanel-Voice Messages. 15E - Understands Chanel-Mode Messages. 15F - Understands System Messages.</p>	<p><u>Career Technical Education:</u> *AME/MDAP/ A2.2 Know the component steps and skills required to design, edit, and produce a production for audio, video, electronic, or printed presentation. A2.4 Analyze the techniques used in media messages for a particular audience and evaluate their effectiveness (e.g., Orson Welles' radio broadcast "War of the Worlds").\ <u>Core Academic:</u> *ELA/LS/G11-12/ 1.3 Interpret and evaluate the various ways in which events are presented and information is communicated by visual image makers (e.g., graphic artists, documentary filmmakers, illustrators, news photographers).</p>	<p>A - What is MIDI B - MIDI Messaging C - MIDI Filtering D - MIDI Mapping</p>		<p><u>Teacher Resources:</u> Pro Tools 101 Official Courseware, 3rd Ed., Digidesign and Frank D. Cook 2006</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments: MIDI One PowerPoint </p> <p>Comments:</p>				


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<u>Semester 1 - Unit 12 – Hardware Systems with MIDI Productions (3 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>16A - Utilizes MIDI ports. 16B - Understands MIDI echo. 16C - Understands Configuring Hardware. 16D - Understands Configuration of MIDI studio.</p>	<p><u>Career Technical Education:</u> *IT/ISSP/ A2.3 Know the processes needed to install and maintain systems. *IT/NCP/ C2.1 Know the types of networks and their features and applications. C4.3 Understand the implications of major protocols and international standards and their impact on data transmission. <u>Core Academic:</u></p>	<p>A - System Interconnection B - The MIDI Cable C - The MIDI Interface D - The Computer Based Recording system and MIDI</p>	<p>Synthesizer Hard Synth Soft Synth MIDI Master / Slave Quantize</p>	<p><u>Teacher Resources:</u> Pro Tools 101 Official Courseware, 3rd Ed., Digidesign and Frank D. Cook 2006</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments: MIDI Two PowerPoint  / Activity Included</p> <p>Comments: Students need lots of hands-on opportunities setting up and working with MIDI.</p>				

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<u>Semester 1 - Unit 14 – The Electronic Musical Instrument (3 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>18A - Understands configuration and use of synthesizers.</p> <p>18B - Understands configuration and use of software instruments.</p> <p>21G - Connects a direct input instrument using a direct box.</p>	<p><u>Career Technical Education:</u> *AME/PMAP/ 2.1 Know the key elements and functional responsibilities involved in the production and presentation of the performing, visual, and media arts.</p> <p><u>Core Academic:</u> *AME/A/1.2R/ (2.6) Demonstrate use of sophisticated learning tools by following technical directions (e.g., those found with graphic calculators and specialized software programs and in access guides to World Wide Web sites on the Internet). *AME/A/1.2S/ (4d) Students know sound is a longitudinal wave whose speed depends on the properties of the medium in which it propagates.</p>	<p>A -Keyboard Instruments B - Virtual Instruments</p>		<p><u>Teacher Resources:</u></p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments: MIDI Two PowerPoint  / Activity Included</p> <p>Comments: Students need lots of hands-on opportunities setting up and working with MIDI.</p>				

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<u>Semester 1 - Unit 15 – MIDI Sequencing (4 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>19A - Understands software based sequencers.</p> <p>19B - Demonstrates recording.</p> <p>19C - Performs playback.</p> <p>19D - Demonstrates editing.</p> <p>19E - Utilizes internal sequencers.</p> <p>19F - Utilizes external sequencers.</p> <p>19G - Knows hardware-based sequencing.</p> <p>19H - Knows computer-based sequencing.</p>	<p><u>Career Technical Education:</u> *AME/MDAP/ A2.3 Use technology to create a variety of audio, visual, written, and electronic products and presentations.</p> <p><u>Core Academic:</u> *M/NS/G7/ 1.3 Convert fractions to decimals and percents and use these representations in estimations, computations, and applications.</p>	<p>A - Introduction to Sequencers</p> <p>B - Sequencer Systems</p>		<p><u>Teacher Resources:</u> Working With Pro Tools: Skill Pack, Hagerman, Andy 2007</p> <p>Working With Beats in Pro Tools: Skill Pack, Hagerman, Andrew 2007</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments: MIDI Two PowerPoint  / Activity Included</p> <p>Comments:</p>				

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<u>Semester 1/2 - Unit 16 – Occupational and Workplace Knowledge (4 hours) (Taught Throughout)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>1A - Accesses and utilizes technology and information.</p> <p>1B - Practices occupational safety standards.</p> <p>1C - Thinks critically and solving problems effectively.</p> <p>1D - Uses basic skills in reading, writing, mathematics, listening and speaking as they relate to occupation specific skills.</p> <p>1E - Attains a comprehensive understanding of all aspects of industry the individual is preparing to enter.</p> <p>1F - Applies knowledge to real world problems and situations.</p> <p>2A - Works independently and collaboratively.</p> <p>2B - Communicates effectively and appropriately.</p> <p>2C - Performs reliably and responsibly.</p> <p>2D - Works with diverse populations effectively and respectfully.</p> <p>2E - Is punctual.</p> <p>2F - Follows directions.</p> <p>2G - Works well with minimum supervision.</p> <p>2H - Is cooperative.</p> <p>2I - Takes initiative by working beyond minimum requirements.</p> <p>2J - Meets job standards of neatness and grooming.</p>	<p><u>Career Technical Education:</u> *AME/CPM/ 3.2 Understand the scope of career opportunities and know the requirements for education, training, and licensure. 3.8 Understand the use of contracts in the arts industry and the principles and responsibilities of working as an independent contractor, including budgeting, project planning, advertising, and marketing strategies. *AME/TC/ 4.2 Understand the use of technological resources to gain access to, manipulate, and produce information, products, and services. 4.5 Know the key technological skills appropriate for occupations in the arts industry. 4.6 Know how technology and the arts are interrelated in the development of presentations and productions. *AME/PSCT/ 5.3 Use critical thinking skills to make informed decisions and solve prob *AME/LT/ 9.5 Understand how to interact with others in ways that demonstrate respect for individual and cultural differences and for the attitudes and feelings of others. *AME/TKS/ 10.1 Know universal cultural concepts and identify cultural differences. 10.10 Use technical applications in</p>	<p>A - Elements of industry planning B - Elements of management. C - Industry finance. D - Principles of technology. E - Labor and regulatory issues. F - Community, health, safety and environmental issues. G - Resources allocation H - Team work I - Data evaluation J - Social, organizational, and technical systems K - Equipment and tools L - Safety procedures and practices. M - Ethics and confidentiality.</p>		<p><u>Teacher Resources:</u> Entrepreneurship Ideas in Action 4e, Greene, Cynthia L., 2009</p> <p><u>Student Resources:</u></p>

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Semester 1/2 - Unit 17 – Job Acquisitions Skills (4 hours) (Taught Throughout)				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>3A - Completes an appropriate resume and job application.</p> <p>3B - Acquires job interview techniques.</p> <p>3C - Attains awareness of advanced career and educational opportunities.</p>	<p><u>Career Technical Education:</u> *AME/TKS/ 10.6 Know the appropriate skills and vocabulary of the art form. *AME/CPM/ 3.1 Know the personal qualifications, interests, aptitudes, knowledge, and skills necessary to succeed in careers. 3.5 Understand the past, present, and future trends that affect careers, such as technological developments and societal trends, and the resulting need for lifelong learning. 3.6 Know important strategies for self-promotion in the hiring process, such as job applications, résumé writing, interviewing skills, and preparation of a portfolio. *AME/LT/ 9.2 Understand the ways in which preprofessional associations and competitive career development activities enhance academic skills, promote career choices, and contribute to employability. <u>Core Academic:</u> *AME/C/2.3WO/ELC/G11-12/ (1.1) Demonstrate control of grammar, diction, and paragraph and sentence structure and an understanding of English usage. (1.2) Produce legible work that shows accurate spelling and correct punctuation and capitalization. (3.3) Reflect appropriate manuscript requirements in writing.</p>	<p>A - Resume and job application B - Job interview techniques C - Advanced careers and educational opportunities D - Cover letter</p>	<p>Career Characteristics Follow-through Interview skills Job Description Job Interview Organization Objective Planning Position Portfolio Reference Referred Resume Salary Skills Strengths</p>	<p><u>Teacher Resources:</u> Entrepreneurship Ideas in Action 4e, Greene, Cynthia L., 2009</p> <p><u>Student Resources:</u></p>

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	<p>*AME/C/2.2W/WA/G8/ (2.5) Write documents related to career development, including simple business letters and job applications:</p> <ul style="list-style-type: none">a. Present information purposefully and succinctly and meet the needs of the intended audience.b. Follow the conventional format for the type of document (e.g., letter of inquiry, memorandum). <p>*AME/C/2.2W/WSA/G11-12/ (2.5) Write job applications and résumés:</p> <ul style="list-style-type: none">a. Provide clear and purposeful information and address the intended audience appropriately.b. Use varied levels, patterns, and types of language to achieve intended effects and aid comprehension.c. Modify the tone to fit the purpose and audience.d. Follow the conventional style for that type of document (e.g., résumé, memorandum) and use page formats, fonts, and spacing that contribute to the readability and impact of the document. <p>(2.6) Deliver multimedia presentations:</p> <ul style="list-style-type: none">a. Combine text, images, and sound and draw information from many sources (e.g., television broadcasts, videos, films, newspapers, magazines, CD-ROMs, the Internet, electronic media-generated images).b. Select an appropriate medium for each element of the presentation.c. Use the selected media skillfully, editing appropriately and monitoring for quality.d. Test the audience's response and			
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	revise the presentation accordingly.			
Suggestions/Assessments:				
Comments:				

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<u>Semester 2 - Unit 18 – MIDI in Pro Tools (10 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>20A - Demonstrates setting meter and tempo.</p> <p>20B - Understands the distinction between Tick-Based and Sample-Based Operation.</p> <p>20C - Understands setting time base ruler and main time scale.</p> <p>20D - Enables input from the MIDI device.</p> <p>20E - Checks MIDI inputs and outputs.</p> <p>20F - Enables MIDI compatible tracks.</p> <p>20G - Configures and record using virtual instruments.</p> <p>20H - Sets default tempo.</p> <p>20I - Records MIDI performances.</p> <p>20J - Explains visual MIDI information.</p>	<p><u>Career Technical Education:</u> *IT/MSSP/ B3.4 Understand the types of media storage and the use of appropriate file formats, and know how to convert data between media and file formats.</p> <p><u>Core Academic:</u></p>	<p>A - Meter and Tempo B - Tick-Based C - Time Scale and Rulers D - MIDI Input E - MIDI Inputs/Outputs F - Record Enable G - Virtual Instruments H - Tempo I - Recording J - Viewing MIDI data</p>		<p><u>Teacher Resources:</u> Pro Tools 101 Official Courseware, 3rd Ed., Digidesign and Frank D. Cook 2006</p> <p>Working With Pro Tools: Skill Pack, Hagerman, Andy 2007</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments: Applicable exercises from the texts.</p> <p>Comments:</p>				






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<u>Semester 2 - Unit 19 – Editing MIDI in Pro Tools (5 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>21A - Understands configuring playback options.</p> <p>21B - Understands edit modes and their individual advantages.</p> <p>21C - Understands standard editing commands.</p> <p>21D - Moves and trims regions.</p> <p>21E - Edits fades and effects.</p>	<p><u>Career Technical Education:</u> *AME/RF/ 7.7 Develop a personal commitment to and apply high-quality craftsmanship to a product or presentation and continually refine and perfect it.</p> <p><u>Core Academic:</u></p>	<p>A - Playback Options B - Edit Modes C - Editing Regions D - Fades Effects</p>		<p><u>Teacher Resources:</u> Pro Tools 101 Official Courseware, 3rd Ed., Digidesign and Frank D. Cook 2006</p> <p>Working With Pro Tools: Skill Pack, Hagerman, Andy 2007</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments: Applicable exercises from the texts.</p> <p>Comments:</p>				


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<u>Semester 2 - Unit 20 – Selecting in Pro Tools (5 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>23A - Understands timeline selection.</p> <p>23B - Understands Edit selection.</p> <p>23C - Marks and adjusts selection in and out points.</p> <p>23D - Creates and edits markers.</p>	<p><u>Career Technical Education:</u> *AME/MDAP/ A2.2 Know the component steps and skills required to design, edit, and produce a production for audio, video, electronic, or printed presentation. *AME/TC/ 4.7 Understand how technology can reinforce, enhance, or alter products and performances <u>Core Academic:</u></p>	<p>A - Timeline Selection B - Edit Selection C - In and Out Points D - Markers</p>	<p>Timeline Memory Location Marker Ruler</p>	<p><u>Teacher Resources:</u> Pro Tools 101 Official Courseware, 3rd Ed., Digidesign and Frank D. Cook 2006</p> <p>Working With Pro Tools: Skill Pack, Hagerman, Andy 2007</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments: Applicable exercises from the texts.</p> <p>Comments:</p>				

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<u>Semester 2 - Unit 21 – Mixing in Pro Tools (Overview) (15 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>21A - Operates a mixing console.</p> <p>21B - Demonstrates proper gain structure.</p> <p>21E - Demonstrates proper use of busses.</p> <p>21G - Connects a direct input instrument using a direct box.</p> <p>21H - Connects and correctly operates and understands various microphone types.</p> <p>21I - Connects and correctly operates passive and active speakers.</p> <p>22A - Understands and uses terms such as inputs, outputs, inserts, sends and returns.</p> <p>22B - Configures mix window.</p> <p>22C - Understands write mode and read mode.</p> <p>22D - Understands function and concept behind TDM and RTAS plug-ins.</p> <p>22E - Understands science and function of reverb, delays, flange and chorus.</p>	<p><u>Career Technical Education:</u></p> <p>*AME/TKS</p> <p>10.10 Use technical applications in the creative process, where appropriate.</p> <p>*AME/PMAP/</p> <p>C1.3 Apply decision-making and problem-solving techniques to repair and replacement procedures for media and arts equipment and facilities.</p> <p>*AME/MDAP/</p> <p>A2.2 Know the component steps and skills required to design, edit, and produce a production for audio, video, electronic, or printed presentation.</p> <p>A2.3 Use technology to create a variety of audio, visual, written, and electronic products and presentations.</p> <p>A2.5 Know the writing processes, formats, and conventions used for various media.</p> <p><u>Core Academic:</u></p>	<p>A - The Live Mixing Console</p> <p>B - Gain Structure</p> <p>C - Equalization</p> <p>D - Auxiliary In and Outs</p> <p>E - Busses</p> <p>F - Effects</p> <p>G - Line Inputs</p> <p>H - Microphones</p> <p>I - Speakers and Headphones</p> <p>J - Terminology</p> <p>K - Configuration</p> <p>L - Automation</p> <p>M - Plug-Ins</p>	<p>Preproduction</p> <p>Mixing</p> <p>Mastering</p> <p>Multitrack</p> <p>Panning</p> <p>DAW</p> <p>In-The-Box</p> <p>Out-Of-The-Box</p> <p>Stereo</p> <p>Monophonic</p> <p>Ergonomics</p> <p>WMSDs</p> <p>Reference Material</p> <p>Input</p> <p>Output</p> <p>Insert</p> <p>Send</p> <p>Return</p> <p>Gain Staging</p> <p>Panning</p> <p>Static Mix</p> <p>Dynamic Mix</p> <p>Automation</p> <p>Track Group</p> <p>Memory Location</p> <p>Marker</p> <p>Ruler</p>	<p><u>Teacher Resources:</u></p> <p>Mixing In Pro Tools: Skill Pack, Smithers, Brian 2007</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments:</p> <p>Mixing Part One: Introduction to Mixing PowerPoint </p> <p>Mixing Part Two: Levels, Panning and Automation PowerPoint </p> <p>Mixing Part Three: Groups, Memory Location, EQ and Dynamics PowerPoint </p> <p>Mixing In Pro Tools Using Subgroups PowerPoint  / Drum Kit Compression Exercise / Vocal Fattening Exercise</p> <p>Mixing In Pro Tools Review PowerPoint </p> <p>Comments:</p>				

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<u>Semester 2 - Unit 22 – Mixing in Pro Tools (Processors and Effects) (20 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>21A - Operates a mixing console.</p> <p>21B - Demonstrates proper gain structure.</p> <p>21C - Demonstrates proper equalization.</p> <p>21D - Sets up a monitor mix.</p> <p>21E - Demonstrates proper use of busses.</p> <p>21I - Connects and correctly operates passive and active speakers.</p> <p>22A - Understands and uses terms such as inputs, outputs, inserts, sends and returns.</p> <p>22B - Configures mix window.</p> <p>22C - Understands write mode and read mode.</p> <p>22D - Understands function and concept behind TDM and RTAS plug-ins.</p> <p>22E - Understands science and function of reverb, delays, flange and chorus.</p> <p>22F - Understands how to use compression.</p>	<p><u>Career Technical Education:</u> *IT/MSSP/ B3.2 Know how to identify and integrate various types of peripherals and hardware to meet project requirements.</p> <p>B3.3 Use various types of audio and video equipment (e.g., digital cameras, recorders, scanners, Web cams, CD and DVD recorders), as appropriate, for different projects.</p> <p><u>Core Academic:</u> *S/1.2/ (1.c) Identify possible reasons for inconsistent results, such as sources of error or uncontrolled conditions.</p>	<p>A- Gain Structure B - Equalization C - Auxiliary In and Outs D - Busses E - Effects F - Line Inputs G - Speakers and Headphones H - Automation I - Plug-Ins J - Effects K - Compression</p>	<p>Equalization Dynamics Hertz Gate Compressor Threshold Ratio Attack Release Gain Expander Limiter Submixes /Subgroups Aux Input Bus Fader Group Bounce / Print</p>	<p><u>Teacher Resources:</u> Mixing In Pro Tools: Skill Pack, Smithers, Brian 2007</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments:</p> <p>EQ - Pro Tools EQ III: Filters PowerPoint </p> <p>Dynamic Processors – Pro Tools Compressor / Limiter Dyn III PowerPoint / Exercises Chapter 2 “Mixing In Pro Tools”</p> <p>Dynamic Processors – Pro Tools Expander / Gate Dyn III PowerPoint / Exercises Chapter 2 “Mixing In Pro Tools”</p> <p>Time Based Effects: Delay and Reverb PowerPoint / Exercises Chapter 3 “Mixing In Pro Tools”</p> <p>Special Effects: Chorus, Flange and De-Esser PowerPoint / Exercises Chapter 4 “Mixing In Pro Tools”</p> <p>Comments:</p>				

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Semester 2 - Unit 23 – Mixing in Pro Tools (The Rough Mix) (24 hours)				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>21E - Demonstrates proper use of busses.</p> <p>21I - Connects and correctly operates passive and active speakers.</p> <p>22A - Understands and uses terms such as inputs, outputs, inserts, sends and returns.</p> <p>22B - Configures mix window.</p> <p>22C - Understands write mode and read mode.</p> <p>22D - Understands function and concept behind TDM and RTAS plug-ins.</p> <p>22E - Understands science and function of reverb, delays, flange and chorus.</p> <p>22F - Understands how to use compression.</p>	<p><u>Career Technical Education:</u> *AME/PMAP/ C1.1 Understand technical support functions in the arts industry. *AME/PSCT/ 5.1 Apply appropriate problem-solving strategies and critical thinking skills to work-related issues and tasks. <u>Core Academic:</u></p>	<p>A- Refining Memory Locations B – Track Order C – Mixing with Groups D – I/O Setup E - Balance F – Bus Mults G – Multiple Outputs H – Master Faders I - Plug-In Automation J – Printing MIDI Parts K – Side-Chain Processing L – Ducking M – System Settings N – Printing Effects and Submixes</p>		<p><u>Teacher Resources:</u> Mixing In Pro Tools: Skill Pack, Smithers, Brian 2007</p> <p><u>Student Resources:</u></p>
<p>Suggestions/Assessments: The Rough Mix – Overview (Chapter 5 “Mixing In Pro Tools”) Advanced Signal Processing (Chapter 6 “Mixing In Pro Tools”) Bouncing the Mix – Organization (Chapter 8 “Mixing In Pro Tools”) Doubling Parts (Chapter 9 “Mixing In Pro Tools”) Stems and Submixes (Chapter 10 “Mixing In Pro Tools”) Advanced Dynamics (Chapter 11 “Mixing In Pro Tools”)\ Stereo Enhancement (Chapter 12 “Mixing In Pro Tools”) Managing Mix Resources (Chapter 14 “Mixing In Pro Tools”)</p> <p>Comments:</p>				

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<u>Semester 2 - Unit 25 – Post Production (10 hours)</u>				
Competencies	Standards	Suggested Pacing	Essential Vocabulary	Resources/Materials
<p>3D - Explains post production.</p> <p>24A - Demonstrate sound effect placement techniques.</p> <p>24B - Demonstrate voiceover/narration recording techniques.</p>	<p><u>Career Technical Education:</u> *AME/ELR/ 8.1 Know the major local, district, state, and federal regulatory agencies and entities that affect the industry and how they enforce laws and regulations. 8.2 Understand the concept and application of ethical and legal behavior consistent with workplace standards. 8.3 Understand the role of personal integrity and ethical behavior in the workplace. 8.4 Adhere to the copyright and intellectual property laws and regulations, and use and cite proprietary information appropriately. 8.5 Understand the ethical implications of the degree of influence media, arts, and performances have on individuals. *AME/RF/ 7.7 Develop a personal commitment to and apply high-quality craftsmanship to a product or presentation and continually refine and perfect it. <u>Core Academic:</u></p>	<p>A - Sound effects B - Voiceovers</p>		<p><u>Teacher Resources:</u> Pro Tools 101 Official Courseware, 3rd Ed., Digidesign and Frank D. Cook 2006</p> <p><u>Student Resources:</u></p>

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Suggestions/Assessments:

TV Commercial – Final Project: Given a video clip, students will add and place sound effects, voiceovers and narration.

Comments: