

# MUSIC TECHNOLOGY (MTEC)

## MTEC 49 • HISTORY OF MUSIC TECHNOLOGY

<b>Units:</b>	4
<b>Hours:</b>	4 lecture, 1 laboratory per week (60 total per quarter)
<b>Degree and Credit</b>	Degree-Applicable Credit Course
<b>Status:</b>	
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU/UC
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

The history of music technology and sound recording from the earliest analog devices to current digital streaming services. How technological change is inseparable from economic, cultural and political change. Ways that music producers responded to different access of technologies shaped by geographical and economic factors. Historical, cultural and theoretical understanding of recorded sound, media, and digital distribution. How the digital era, laptop computers and mobile phones made home studios the dominant location for commercial record production. Hands-on experience with a variety of analog and digital audiovisual technologies. Identify hallmark sounds from commercially released recordings by historically significant audio engineers, music producers and artists.

## MTEC 50A • INTRODUCTION TO MUSIC TECHNOLOGY

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 66A.
<b>Degree and Credit</b>	Degree-Applicable Credit Course
<b>Status:</b>	
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Introduction to creating music with computers, keyboards, audio samples and beats using Pro Tools and other digital audio workstations. Basic principles and use of MIDI sequencing/audio software. Songwriting, musical composition, mixing, mastering and the basic elements of music (pitch, rhythm, harmony, style and form) as they relate to contemporary music. Basic music production using DAWs (Digital Audio Workstations). General computer literacy and media management. All styles are included, and prior musical training is not required.

## MTEC 51A • STUDIO RECORDING I

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 80A.
<b>Degree and Credit</b>	Degree-Applicable Credit Course
<b>Status:</b>	
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Introduction to fundamental concepts and techniques of mixing boards, amplifiers, microphones, signal processors and their application to both live and studio sound reinforcement. Basic introduction to computer based recording with Avid Pro Tools HD systems. Microphone placement, physics of sound as it relates to recording, sound reinforcement and studio setup techniques.

## MTEC 51B • STUDIO RECORDING II

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 81 or 81A.
<b>Degree and Credit</b>	Degree-Applicable Credit Course
<b>Status:</b>	
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Introduction to multitrack recording and production using Avid Pro Tools HD systems. Contemporary recording studio production techniques including microphone selection, placement, analog and digital signal paths, speaker monitors and studio acoustics. Techniques for recording drums, bass, piano, guitar, woodwinds, strings and vocals. Practical hands-on experience with professional recording artists and student collaborations.

## MTEC 51C • STUDIO RECORDING III

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Degree and Credit</b>	Degree-Applicable Credit Course
<b>Status:</b>	
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Advanced recording studio techniques, concepts, and creative elements of professional music production. Advanced microphone techniques and acoustics. Planning and pre-production, studio teamwork, collaborating with musicians in the role of producer/engineer. Mixing, mastering, post-production used in professional digital media content creation workflows. Utilizing analog and digital audio equipment in complex hybrid configurations. Successful completion of this course will prepare students for internship or entry-level employment position in a recording studio, audio for post facility, or mastering facility.

**MTEC 52A • MIXING & MASTERING I**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 81C.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Mixing and mastering multitrack recordings using Pro Tools. EQ, compression, reverb, delays, tempo maps, harmonic distortion, multi-band compression. Comparison and contrast of various styles of mixing including jazz, classical, country, rock, hip-hop and electronica, etc. Example exercises featuring professional recordings and mixes. Understanding and applying mixing concepts such as balance, dimension, and monitoring. Deliver final mixes that translate accurately to various speaker systems and listening environments.

**MTEC 52B • MIXING & MASTERING II**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 81G.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Advanced mixing and mastering techniques with Pro Tools. EQ, compression, reverb, delays and tempo maps as applied to all styles of music including jazz, pop, rock, hip-hop, orchestral and electronica. Apply critical listening to mixes and enhance mixes with automation, audio plug-ins and external hardware equipment. Use multi-band compression and advancing audio processing in mastering. Study mixes of professional audio engineers and recording artists. Prepare to work in commercial production facilities and apply these techniques in a home studio. Learn professional collaboration workflows, file management and delivery to a wide range of formats including CD, DVD, MP3 and internet streaming. Although this course uses Pro Tools, the concepts and techniques can be applied to any digital audio workstation (Logic, Cubase, etc.) or any traditional analog mixing console.

**MTEC 53A • AUDIO PLUG-INS & SIGNAL PROCESSING**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 81D.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Creative applications of software plugins and outboard hardware used in contemporary music production and sound design. Signal processing, equalization, compression, Beat Detective, distortion, reverb, delay, pitch correction, modulation, advanced plugin automation techniques. Compare plugins and processors from different companies, including Sonnox, McDSP, Massey, Avid, Antares and Waves. Practice with a wide range of material and genres, including rock, pop, hip-hop, jazz, acoustic, orchestral, electronic and spoken word. Apply techniques to any digital audio workstation, including Pro Tools, Logic, Ableton Live and Studio One, and traditional analog mixing consoles.

**MTEC 54A • MUSIC THEORY FOR AUDIO PRODUCERS**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Introductory course in music theory as applied to audio production, music technology and songwriting. Study elements of music, including melody, rhythm, chords and musical forms. Understand traditional music notation as applied to MIDI sequencers, Pro Tools and other Digital Audio Workstations (DAWS). Edit drum and percussion notation to program beats, MIDI sequencer Event Lists, and digital sample libraries. Ear training exercises for audio engineers to make equalization and production decisions based on harmonic overtones, key signatures and chord progressions. Selected listening and analysis of famous composers and award-winning producers in a wide variety of styles. Study the Nashville number music notation shorthand system. Develop ability to quickly and effectively recognize chord changes and transpose to any key. Learn to read, write and conduct orchestral scores used in commercial recording studios. Apply traditional music theory concepts to modern digital audio editing software, such as Melodyne, Auto-Tune, Elastic Audio, and computer virtual instrument orchestration.

## **MTEC 55A • INTRODUCTION TO GAME AUDIO**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 82F or 84A.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Recording, editing and mastering sound for games and interactive multimedia. Working with dialog, scripts, sound effects, foley, ambient backgrounds, loops, elastic audio, tempo matching, digital processing and plug-ins. Producing game music, layering, splicing, mixing cinematic audio. Deliver game audio formats to commercial players and end users. Hands-on experience with professional examples of game audio production soundtracks and workflows including Sony Computer Entertainment and Microsoft Game Studios. Part of Avid Pro Tools Certification training program.

## **MTEC 55B • ADVANCED SOUND DESIGN FOR GAMES**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 84B.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Designing and implementing sound effects for games and interactive media. Recording custom sound effects and working with commercial sound effects libraries. Advanced techniques for designing hard effects, foley sounds, and ambient backgrounds. Industry-standard workflows for sound effects implementation with audio middleware solutions. Hands-on experience with professional examples of game audio sound design on desktop, console, and mobile platforms.

## **MTEC 55C • MUSIC COMPOSITION FOR GAMES**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 84C.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Composing, orchestrating, and implementing music for games and interactive multimedia. Fundamental composition and orchestration techniques for strings, brass, woodwinds, and percussion. Mixing and mastering finished compositions for optimal interactivity. Industry-standard workflows for interactive music implementation with sophisticated audio middleware solutions. Hands-on experience with professional examples of game music on desktop, console, and mobile platforms.

## **MTEC 57A • SOUND DESIGN FOR FILM & VIDEO**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MDIA 81B, MUS 81B or VART 81B.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Creating, editing, and mixing audio for film and video. Understanding aesthetic qualities of sound effects and music as they relate to story. Recording original sound elements and using commercial sound libraries. Editing, layering, and processing sound elements to create complex sound effects. Synchronizing audio to video using a digital audio workstation. Basics of mixing and mastering finished soundtracks for digital distribution.

## **MTEC 57B • SURROUND SOUND PRODUCTION**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 81J.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Record, mix, and produce surround music with digital audio workstations. Calibrating surround speaker systems, recording surround music in the studio and concert hall, multichannel mixing for music and post, processing source sound elements using surround reverbs and delays, mastering music and post sessions to industry specifications, and encoding mixes into popular surround formats. Analysis of historically significant surround sound music recordings and film soundtracks.

## **MTEC 57C • MUSIC COMPOSITION FOR FILM & TV**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Creative and technical aspects of composing music for film and television. Basic overview of modern composition and orchestration techniques for strings, brass, woodwinds, and percussion. Technical aspects of scoring using a digital audio workstation, virtual instruments, and MIDI. Generating a notated score for musicians to perform in a recording session. Analysis of historically significant film and television scores. Students will score several visual sequences featuring different types of dramatic content.

## **MTEC 60A • PRODUCING IN THE HOME STUDIO I**

<b>Units:</b>	4
<b>Hours:</b>	4 lecture, 1 laboratory per week (60 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 60A.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Design, set up and operation of an audio/video recording studio in a small environment. Space considerations, electrical requirements and acoustic treatment options. Computer requirements including processor speed, memory requirements, data storage devices and monitor selection/ placement. MIDI keyboard types and compatibility, mixer selection and setup, cable selection and care, microphone design, and USB/firewire interface options. Software programs and compatibility issues. How to produce recordings from start to finish in a home studio.

## **MTEC 62A • COMPOSING & PRODUCING ELECTRONIC MUSIC I**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 6 or 67.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Introduction to the tools and techniques used to create and perform electronic music in a variety of styles. Programming of virtual analog and digital synthesizers, developing techniques for recording unique instruments and sounds, creating custom single and multi-sample patches using software samplers, using algorithmic composition tools and techniques, building interactive performance systems using object-oriented programming environments, and adapting hardware and software for live performance.

## **MTEC 62B • COMPOSING & PRODUCING ELECTRONIC MUSIC II**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 66C.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Creating and editing sounds with synthesizers, samplers, drum machines, and virtual instruments. Compose and produce music in a variety of styles, including commercial and experimental. Utilize MIDI and virtual instruments for songwriting, arranging, and orchestration. Program analog synthesizer modules, including oscillators, filters, ADSR envelope generators, and LFOs. Overview of third party virtual instruments and plugins. Create, edit, and arrange drum beats. Emulate acoustic instruments, violin sections, brass, woodwinds, and choir. Organize sound libraries and virtual instrument templates for music production, TV, film, websites, and video games. Work can be done in any major DAW that supports AU, AAX, or VST instruments, including Pro Tools, Logic, Cubase, Live, etc.

## **MTEC 62C • COMPOSING & PRODUCING ELECTRONIC MUSIC III**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Advanced techniques for electronic music production in a variety of genres. Recording and processing vocals. Advanced analog and digital synthesis and sound design techniques. Field recording of original samples for use in producing drum beats and textures. Mixing and mastering finished compositions for commercial distribution. Remixing existing songs from both stereo mixes and multi-channel stems. Creating dynamic, real-time live performances using a variety of hardware controllers.

## **MTEC 70A • PRO TOOLS 101-AVID CERTIFICATION**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 82A.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Introduction to Pro Tools with Avid Certification training material. Basic audio editing tools and techniques, plug-ins and mixing in the Pro Tools environment. Build sessions that include multitrack recordings of live instruments, MIDI sequences, virtual instruments, audio loops and beats. Practical experience with examples from major label recording artists and feature films. Understanding menus, windows, preferences and system configurations for Pro Tools in home studios and professional facilities. Introduction to automation, dialog editing and audio post production for film and video. Required for Avid Pro Tools Certification.

## **MTEC 70B • PRO TOOLS 110-AVID CERTIFICATION**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 82B.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Pro Tools production concepts and techniques with Avid Certification training material. Recording, editing, routing audio and MIDI data. Managing Pro Tools sessions, using virtual instruments, plug-ins, loop recording, Elastic Audio, Beat Detective and music notation. Conform loops and beats to any tempo. Introduction to control surfaces, automation modes and signal path workflows. Practical applications with examples from professional recording artists including pop, rock, jazz and hip-hop. Create tempo maps, meter changes and transpose key signatures. Required for Avid Pro Tools Certification.

## **MTEC 70C • PRO TOOLS 201-AVID CERTIFICATION**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 82C.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Avid Pro Tools Certified training material covers concepts and skills needed to operate Pro Tools in a professional recording studio environment. Introduction to Pro Tools HD system configurations. Pro Tools HD features, including control surfaces, automation, advanced editing, mixing, hardware setup, and session management. Practical examples and experience with exercise files from professional music, film, and TV productions. Required course for Avid Pro Tools Operator Level Certification. Prepares for enrollment in Pro Tools 300 Expert Level Certification courses.

## **MTEC 70D • PRO TOOLS 210M-AVID CERTIFICATION**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 82D.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Avid Pro Tools Certified course completes skills needed to operate sophisticated Pro Tools systems in professional music production environments. Music production techniques, composing with MIDI, loop editing, sampling in Pro Tools, Beat Detective, drum replacement and augmentation, final mixing and mastering. Collaborate workflows between home studios and commercial recording facilities. Pro Tools keyboard shortcuts for increased efficiency. Practical examples and experience with exercise files from professional recording artists. Successful completion achieves Avid Pro Tools Operator Music Certification.

## **MTEC 70E • PRO TOOLS 210P-AVID CERTIFICATION**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 82E.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Synchronizing Pro Tools for audio post production with film, video and multimedia. Recording and editing ADR (automated dialog replacement), music, sound effects and multichannel audio. Mixing stereo and surround sound formats synchronized to digital picture. Layback and export options for final delivery to broadcast industry formats including QuickTime and Avid media. Practical experience with examples from feature films, documentaries and TV commercials. Successful completion achieves Avid Pro Tools Operator Post Certification.

## **MTEC 70F • PRO TOOLS 310M-AVID CERTIFICATION**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 82G.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Advanced operation of Pro Tools in a professional music production environment. Audio recording, editing, MIDI, virtual instruments, final mix down, automation and mastering techniques. Integration of Pro Tools shortcuts and equipment configurations for increased efficiency in recording studio facility workflows. Hands-on experience with examples from major label recording artists, producers and mix engineers. Successful completion achieves Avid Pro Tools Expert Level Music Certification.

## **MTEC 72B • PRODUCING MUSIC WITH ABLETON LIVE**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 66E.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Producing music with Ableton Live software. Compose, record, mix, improvise, produce and edit music. Study Ableton Live interface, edit audio, use plug-ins, MIDI sequencing and realtime mixing techniques. Compile live sets from audio clips, loops, samples in realtime and create songs in a variety of styles.

## **MTEC 72C • PRODUCING MUSIC WITH LOGIC PRO**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 66F.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Producing music with Apple Logic Pro software. Understanding the Logic Pro interface, windows and editors, navigation, key commands, and screensets. MIDI editing, MIDI real-time control, audio recording and editing, and working with QuickTime video. Explore Logic Pro software instruments, including the ES2, EXS-24, Sculpture, UltraBeat, subtractive synthesizers, and vintage instruments. Study critical listening examples with interactive demos and tutorials. Elements of production design, music composition and song form, arrangement tools, and mixing techniques.

## **MTEC 80A • MUSIC BUSINESS**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 50A.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade Only
<b>Repeatability:</b>	Not Repeatable

Study of legal and business aspects of the music industry. Emphasis on publishing, licensing, and promotion. Copyright law, interaction between songwriters and music publishers, record companies, distributors and the rules that govern them. How music is licensed, service marks, trademarks and patents. The role of lawyers, agents, personal managers, producers and promoters. Licensing and copyright of intellectual properties in the growing multimedia industry and the internet. Synchronization of music in film, video and television. Career development and how major/independent labels market and distribute media.

## **MTEC 82A • CAREERS IN MUSIC TECHNOLOGY**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 50C or 65.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

An overview of the music technology industry and career opportunities. Study degree and certification programs that lead to job positions in the content creation industry. Develop advertising and social media marketing skills to promote and brand artists and producers. Learn entrepreneurial strategies to advance student's career and collaborate with professionals. Apply music technology concepts to a wide variety of fields, including software development, sound design, video production, game audio, the record industry, manufacturing, and live performance. Explore internship positions. Develop portfolios of content designed to enter the workforce or transfer to additional degree programs. Guest lectures from local industry professionals; field trips to studios, production facilities, and high tech companies.

## **MTEC 86A • SOUND REINFORCEMENT & EVENT STREAMING**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 62.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable
<b>Formerly:</b>	MUS 62

Setup and operation of sound reinforcement and live streaming systems for musical performances and event production. Basic design and operation of digital mixing boards and live streaming systems. Microphone type, design, construction, and selection. Loudspeaker monitor systems and their application with musical groups and event production. Audio-over-IP applications for sound reinforcement and event production. Stereo and multichannel recording techniques. Practice with live musicians in practice and performance settings.

## **MTEC 88A • SONGWRITING I**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 58A.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Workshop course for beginning songwriters that focuses on basic songwriting styles and techniques. Different songwriting basic methods are presented. Students are assigned weekly songwriting projects. This course is appropriate for basic levels of songwriting competency.

## **MTEC 88B • SONGWRITING II**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 58B.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Workshop course for intermediate songwriters that focuses on contemporary and songwriting methodology. Different songwriting components and structures are presented. Students are assigned weekly songwriting projects and are expected to submit finished songs with all the necessary components. Course includes analytical listening and discussion of various songwriting styles. Course is appropriate for medium levels of songwriting competency.

## **MTEC 88C • SONGWRITING III**

<b>Units:</b>	4
<b>Hours:</b>	3 lecture, 3 laboratory per week (72 total per quarter)
<b>Advisory:</b>	Not open to students with credit in MUS 58C.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	Not Repeatable

Workshop course for advanced songwriters that focuses on higher-level topics such as self-criticism, rewriting and co-writing. Demonstrations of the practical use of technique and an understanding of the works of the most accomplished professional songwriters. Course is appropriate for advanced levels of songwriting competency.

## **MTEC 90A • MUSIC TECHNOLOGY ENSEMBLE**

<b>Units:</b>	2
<b>Hours:</b>	1 lecture, 3 laboratory per week (48 total per quarter)
<b>Advisory:</b>	Placement by audition based on the ability to play an instrument.
<b>Degree and Credit Status:</b>	Degree-Applicable Credit Course
<b>Foothill GE:</b>	Non-GE
<b>Transferable:</b>	CSU
<b>Grade Type:</b>	Letter Grade (Request for Pass/No Pass)
<b>Repeatability:</b>	May be taken six times for credit

Select group performing varied literature in contemporary styles, including pop, rock, hip-hop, metal, and jazz. Designed to develop the performing skills needed by musicians in a studio recording environment. Open by audition to all students. May be repeated up to six times.