

MTEC 55A: INTRODUCTION TO GAME AUDIO

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2021
Units:	4
Hours:	3 lecture, 3 laboratory per week (72 total per quarter)
Advisory:	Not open to students with credit in MUS 82F or 84A.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade (Request for Pass/No Pass)
Repeatability:	Not Repeatable

Description

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.

Course Objectives

The student will be able to:

- Understand game audio workflows.
- Record and edit dialog.
- Utilize foley production techniques.
- Add and blend sound effects.
- Layer ambient sounds into composite audio mixes.
- Create interactive music scores.
- Incorporate realistic vehicle sounds.
- Create dynamic cinematics.

Course Content

- Study and analysis of Avid Pro Tools game audio techniques.
 - Understand game audio workflows and assessing audio requirements.
 - Sound acquisition, studios and field recording. Organizing libraries of sounds.
 - Processing game audio with Time Division Multiplexing and Real Time Audio Suite hardware and software.
 - Apply appropriate dither algorithms for bit resolution optimization.
 - Export and manage digital audio file formats maintaining inter-operational cross-platform compatibility.
 - Assess Foley requirements and recording workflows with appropriate microphones and analog/digital signal paths. Export and manage digital audio file formats maintaining inter-operational cross-platform compatibility.

- Digital audio editing techniques as applied to music and sound effects synchronized to digital video.

Lab Content

- Lab content includes topics such as track count, elastic audio settings and rendering levels, plug in and bus considerations, insert tracks and routing importing and exporting file types, bit rate encoding, bouncing audio to disk, consolidating audio regions, etc.
- Other items may include subjects such as number of plug ins per insert track, bus assignments for efficient recording operation, and mastering compression settings.

Special Facilities and/or Equipment

- When taught on campus:
 - Classroom with 31 Avid Pro Tools systems and appropriate versions of Pro Tools.
 - 31 Apple Macintosh computers or equivalent running appropriate operating system.
 - Projection system for video and multimedia content.
 - Loudspeaker system to accurately reproduce audio examples.
- When taught via Foothill Global Access:
 - On-going access to computer with email software and capabilities.
 - Email address.
 - JavaScript enabled internet browsing software.
 - Pro Tools software or equivalent Digital Audio Workstation.

Method(s) of Evaluation

Written assignments that analyze, compare and contrast Pro Tools editing techniques
 Hands-on demonstration of Pro Tools techniques including keyboard commands and hardware configurations
 Tests on mastering, final delivery methods, theory and techniques as presented in the Pro Tools 130 textbook
 Final project delivering completed soundtrack demonstrating understanding of class material and assignments

Method(s) of Instruction

Lecture presentations and classroom discussion of the techniques for producing dialog, music, and sound effects for games
 In-class viewing of historically significant video games followed by instructor-guided interpretation and analysis
 Presentations of major game audio projects followed by in-class discussion and evaluation

Representative Text(s) and Other Materials

Kuehnl, Eric. [Pro Tools for Game Audio](#). 2020.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

- Written critiques and analyses of audio production projects including film soundtracks, television, video games and internet multimedia.
- Written summaries documenting technical and artistic elements for corresponding submitted assignments and audio projects.
- Written proposals, session logs, learning outcomes and reflections supporting submitted musical works and final master recordings.

D. Hands-on exercises and guided tutorials to practice audio production concepts and techniques.

Discipline(s)

Commercial Music