DePaul University Spring 2019
Syllabus for Course GAM 250

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Jon Hey's Office Hours:

- Tuesdays and Thursdays 2:00 – 3:00 pm CDM 635
- Wednesdays Noon-4 pm CDM 635 Loop
- Or by appointment

Classroom/Lab CDM 922:

https://www.cdm.depaul.edu/Student-Resources/Pages/LabsAndResources/cdm922.aspx

Summary of course

This course is a hands-on introduction to computer-based audio design for video games. We will be exploring the basics and move to actual lab work. This is for software developers, producers, musicians and anyone else interested in developing sounds and music for video games. As this course is new, I may make adjustments as we go depending on the class members' knowledge and experiences or simply to move along. Nonetheless, the course has been specifically built upon situations encountered in the real-world.

Textbooks and printed resources

There is currently no single textbook. I will be providing handouts with references from many sources.

Changes to Syllabus

This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be thoroughly addressed during class, posted under Announcements in D2L and sent via email.

Prerequisites

There is no prerequisite. I will be "polling" students on their familiarity with software such as Pro-tools, Sound Forge, Audacity, MIDI sequencers, etc. and also about their musical training, if any.

Grading

Grading will be done on an assignment basis. There will be 8 assignments with a 10% grade weight and a Final assignment that weighs 20% for the final grade. There won't be examinations as such. Several assignments may be two-person team assignments.

[Please be advised that some assignments weighted at 10% may be eliminated if our time runs short. The percentages will be adjusted to make the total 100%. For example, if one 10% assignment is eliminated the 7 remaining will be weighted at approx. 11.42%]

Assignments List with percent grade weight

Please also refer to the week by week schedule for more details.

Assignment 1: Edit a song into sections and re-build and create multiple formats.

Assignment 2: Create 4 single sound effects at equalized volumes and 1 looping ambient sound. 10%

Assignment 3: Create "musical" sound effects using a MIDI sequencer, record output and manipulate results in an audio editor. 10%

Assignment 4: Create sound effects for small animations of characters and/or other animated objects (animations provided).10%

Assignment 5: Create a simple adaptive audio music track with loop software or MIDI sequencer. Both record layered elements and playlist to combine elements.

This won't require musical composition unless you wish to do so. 10%

Assignment 6: Totally re-mix a song, choices provided. 10%

Assignment 7: Record and edit "found sounds" from outdoor environments [if possible] and from indoor Foley created sounds.10%

Assignment 8 (part of final) 10%

(Part one): Dialogue script authoring

(Part two): - Record dialogue (part of class day)

(Part three)- Edit and Playlist

(2-person team - each script writer is "producer" and then serves as other team member's recording engineer)

Final Assignment 30%

(Part one): Gather sources for "Cut Scene" (30 second boxing movie "Fight Night" from EA)

(Part two): Finish cut scene audio assembly mix down and sync (Pro-Tools or Sound Forge or Other such as Reaper)

- Week 1

Game Audio Introduction Sound Formats and Game Genres Game Development

Flowchart/Overview Hierarchical Map of a Typical Game Company Video Game History and Playback Systems Game Sound Development Overview Tools, Creating a loop-able segment of audio (Assignment 1)

- Week 2

Game Audio Introduction continued Audio/Sound Roles Organizational Concepts

(Database) Tools - Audio Editors (Sound Forge especially) - Building a Sound Effects Library - Sources (HD, CD, DVD etc.)

Game Audio Lab - Tools continued - Getting Sound in to an editor - Manipulating

Sounds - Getting music into an editor - Looping music and ambient sound effects – Assignment 2: Create single sound effects at equalized volumes and looping ambient sound effects and looping music with an intro and "outro".

- Week 3

Game Audio Lab - Review Assignments - Further techniques - reverbs - compression - other "alterations" and "experiments"

Game Audio Lab Creating "Musical" effects in an audio editor with tones, blending, cutting, abutting, pitch shifting and bending, reverbs, compression and delays. Assignment 3: Create "musical effects".

- Week 4

Review of assignments. Creating sound effects using MIDI sequencer - Using step time and keyboard inputs to create sound effects. Some basic music theory will be involved. Assignment: Begin gathering and adding sound to animations.

Communicating - - Characterizations in sound design - Types of Music - Music Sources

- Week 5

Game Audio Introduction to Playlisting, Getting audio tracks into game-callable code. - Theory of constraint and priorities. Continue animations assignment.

- Week 6

Creating a Simple Musical Track - "Adaptive" Audio overview - MIDI sequencer or loop creator such as ACID. - Layering elements - different techniques. - Coding the layers

Assignment: Create a simple adaptive audio music track with loop software or MIDI sequencer. Both record layered elements and playlist to combine elements.

- Week 7

Creating Foley Sound Effects Recording Custom SFX - Microphones Overview - Handheld Recorders - Techniques - Recording on Location

Record "found sounds" from outdoor environments (if possible) and from indoor Foley created sounds.

- Week 8

In Class Assignment continued: Edit Foley recorded sounds and archive.

Overview of Surround Sound Techniques and other open issues presented. Game Dialogue - concerns - talent / contracts - procedures (Pro-Tools) - Assignment: script authoring

- Week 9

Game Audio Lab In class assignment Record dialogue of scripts

Game Audio Lab Dialogue - Edit and playlist recordings

- Week 10 plus final class week 11

Brief review of dialogue assignment Introduction to "Cut Scenes" Assignment:

Gather sources for Cut Scene (30 second Boxing movie from EA)

Assignment part 2 - Cut Scene Mixing all the elements for cut scene Assignment:

Finish cut scene audio assembly (Pro-)

Final Thoughts/Summary on Aesthetics and Game Audio Industry – Extra Material
- Questions

 "Final" We will review each student's Cut Scene.

Policies and School Policies

Students are expected to attend all classes and participate in in-class exercises. Class will start promptly. Students are individually responsible for material they may have missed due to absence or tardiness, including obtaining readings handed out in class. Students are responsible for reading assigned material before class.

All assignments and class material will be submitted and available at the D2L site. Assignments must represent a student's individual effort. While students are permitted to discuss assignments at the conceptual level, under no circumstances should students share specific answers (electronically or otherwise). Papers must conform to the course guidelines on references and documentation. Use of sources without attribution constitutes plagiarism, a serious violation of academic integrity. Consult the assignment handouts or the instructor if you have questions about how or what to document.

Online Instructor Evaluation

Course and instructor evaluations are critical for maintaining and improving course quality. To make evaluations as meaningful as possible, we need 100% student participation. Therefore, participation in the School's web-based academic administration initiative during the eighth and ninth week of this course is a requirement of this course.

Email

Email is the primary means of communication between faculty and students enrolled in this course outside of class time. Students should be sure their email listed under "demographic information" at http://campusconnect.depaul.edu/ is correct.

Plagiarism

The university and school policy on plagiarism can be summarized as follows:

Students in this course, as well as all other courses in which independent research or writing play a vital part in the course requirements, should be aware of the strong sanctions that can be imposed against someone guilty of plagiarism. If proven, a charge of plagiarism could result in an automatic F in the course and possible expulsion. The strongest of sanctions will be imposed on anyone who submits as his/her own work a report, examination paper, computer file, lab report, or other assignment which has been prepared by someone else. If you have any questions or doubts about what plagiarism entails or how to properly acknowledge source materials be sure to consult the instructor.

Incomplete

An incomplete grade is given only for an exceptional reason such as a death in the family, a serious illness, etc. Any such reason must be documented. Any incomplete request must be made at least two weeks before the final, and approved by the Dean of the School of Computer Science,

Telecommunications and Information Systems. Any consequences resulting from a poor grade for the course will not be considered as valid reasons for such a request.

Students with Disabilities

Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential.

To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at:

- csd@depaul.edu.
- Lewis Center 1420, 25 East Jackson Blvd. Phone number: (312)362-8002
- Fax: (312)362-6544
- TTY: (773)325.7296