

DePaul University Spring 2024

**Syllabus for Course GAM 250 - Jon Hey jhey@depaul.edu
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MW 11:50AM-1:20 PM in CDM 526

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. I may adjust 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.

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 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 will not 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 may be changed in Spring 2024

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 will not 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 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.

Cell Phones Use of cell phones inside the class and the lab is prohibited. Please turn your phone off before entering class. Mistakes will happen (to me too), but repeated failure to turn your phone off will result in a lowered grade for the class. All phone conversations and text messaging should be conducted outside the class.

Academic Integrity Work done for this course must adhere to the DePaul University Academic Integrity Policy, which you can review in the Student Handbook or by visiting <http://studentaffairs.depaul.edu/homehandbook.html>.

Required Text: None, all readings for this class will be provided on D2L as PDFs.

IF you are working in a group, make sure everyone’s name is noted in the document. Only ONE person in a group needs to post to the Submission Folder, if all the names (team members) are there.

Most materials will be provided as print-outs or electronically available.

School Policies: Covid-19 Policies Please see:
<https://resources.depaul.edu/coronavirus/Pages/default.aspx>

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.

Online Course Evaluations Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of

the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation. Students complete the evaluation online in CampusConnect.

Academic Integrity and Plagiarism This course will be subject to the university's academic integrity policy. More information can be found at <http://academicintegrity.depaul.edu/> If you have any questions be sure to consult with your professor. All students are expected to abide by the University's Academic Integrity Policy which prohibits cheating and other misconduct in student coursework. Publicly sharing or posting online any prior or current materials from this course (including exam questions or answers), is providing unauthorized assistance prohibited by the policy. Both students who share/post and students who access or use such materials are cheating under the Policy and will be subject to sanctions for violations of Academic Integrity.

Academic Policies All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the University Academic Calendar. Information on enrollment, withdrawal, grading, and incompletes can be found at:
<http://www.cdm.depaul.edu/Current%20Students/Pages/PoliciesandProcedures.aspx>.

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

Class Assignments Schedule: Please note, if you are more than one week late uploading your Assignments to D2L, your grade will be lowered by one degree for example: A becomes B, etc.