

George Mason University  
College of Visual and Performing Arts  
Computer Game Design Program  
GAME 367: Writing Sound/Music for Games

3 Credit Hours

Prerequisite: GAME 250

Instructor: Matt Nolan

Classroom: AB 2002

Office: Art & Design RM 2023 Office Hours: Thursday 2-4/by appointment

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Course Description: Combined studio and lecture course that will focus on the composition, editing, processing, mixing, scripting and integration of sound effects, narration, and music into computer games. Time, frequency, and amplitude domain digital production and post-production techniques, MIDI control and processing will be reviewed. Audio mixing will be studied, as well as the differences between linear and nonlinear game sound production. Students will explore Audio Middleware and Game Engines, with a focus on understanding the means for creating High Quality Sound and Music for Games.

Portfolio: Students are expected to build and maintain a portfolio of original sound effects and music. This portfolio will be reviewed throughout the semester. Students are expected to have these sounds saved on a physical drive (USB) named with their first initial and last name. Files should be well organized into categories to facilitate easy review and access to files when working on projects. You should keep this with you every time you come to class, so you can share your work if you are asked to. The Portfolio is due one week before your final exam.

**NO LATE PORTFOLIO WILL BE ACCEPTED!**

An "Average" Portfolio has about:

30 Sound FX

10 Voice Recordings

5 Musical Compositions

4 Written Assignments

2 Finished WWISE Tutorials

1 Folder of Scripts

1 Midterm/Assets

1 Final Project/Assets

Class Notes

readme.txt - outlining the contents of your portfolio.

Midterm: Starting in Week 2, Students will create, post-produce, and mix the sound and music for a pre-existing computer game 'mod' (level) that will be due at Midterm(the week after Spring Break). During the second week of class, students will propose a concept for their Mid-Term Project: the intended audience and purpose, the origin of the computer game, and the original resource(s) for the sound and music. At Mid-Term, students are required to present and submit an original produced, post-produced and mixed complete audio score to a small/limited computer game map/level using a minimum of 10 original audio sources, including interface sounds/music, menu sound/music, character sound/music, environmental sounds, asset sounds, and level (theme and battle) music. Students may choose to use their

own, or a pre-existing computer game to score the music and sound.

**Final Project:** In the 10th week of class, students will write a proposal detailing their final project: the intended audience and purpose, the origin of their chosen 'original' computer game, and source(s) for the sound and music. In the final week of class, students will provide a 20-minute presentation discussing the technical, structural and artistic content of their final project. During the final week of the semester, students will present and submit an originally produced, post-produced, and mixed complete audio score, including MIDI controlled resources to a complete **original** multi-level (3+) computer game with a minimum of 20 original audio sources (including narration, interface sounds/music, environmental sounds, asset sounds, and level music).

**Objectives:** To build student awareness of the techniques, methods, and aesthetic choices used to ensure quality sounds, narration, and music for computer games through existing examples, peer critique and discussions, and writing, producing, and post-producing original sounds and music for computer games. To Create two or more playable computer games. To reinforce the best practices for group development of a game. To reinforce a game designer's ability to create their own sound and music for games. To Strengthen a game designer's ability to communicate in musical and technical terms.

**Requirements and Evaluation:** At the beginning of each class meeting, students should be prepared to discuss Homework, topic assignments, and sound/music examples. In addition, students should be prepared to discuss with the class the status and stage of their project(s), as well as any design, structural, technical, or theoretical and historical issues. A lecture or activity will follow, and then students are expected to work during class on their assignments or project. A series of short projects will be assigned to compliment most lectures.

The assigned readings, or other required materials will be online on Blackboard or in the Johnson Center Library.

**Texts:** Marks, Aaron, "The Complete Guide to Game Audio, Second Edition: For Composers, Musicians, Sound Designers, Game Developers (Gama Network Series)", Focal Press; 2nd Ed. (October 31, 2008)

Collins, Karen, "Game Sound: An Introduction to the History, Theory, and Practice of Video Game Music and Sound Design", MIT Press; October 31, 2008

**Other helpful Texts:**

Menard, Michelle, "Game Development with Unity", Course Technology, PRT; 1st Edition (Jan. 2011).

Brandon, A., Audio for Games, Process and Production (Paperback), New Rider Games, 2004. ISBN-13: 978-0735714137

**Grading:**

Grading will be based on participation, homework, and mini-projects(25%)

**Participation entails:**

Students Come to Class Every Week (See Attendance Policy for more Details)

Students prepare for and actively engage in class discussion (e.g., demonstrate active listening, not distracted by electronics or peers)

Students thoughtfully engage in in-class assignments and activities

Students constructively participate in group activities

Students participate in class discussion by

Raising informed discussion points;

Connecting discussion to reading material, news, and relevant experiences;

Asking questions;

Listening to other perspectives;

Sharing the floor with others; and

Posting thoughtfully to course discussion boards.

Sound, Music, and scripting portfolio (20%)

Mid-term presentation and project (20%)

Final presentation and project (35%).

To receive a grade of "A" a student must achieve a minimum average grade of 90% on the course work requirements.

To receive a grade of "B" a student must achieve a minimum average grade of 80% on the course work requirements.

To receive a grade of "C" a student must achieve a minimum average grade of 70% on the course work requirements.

To receive a grade of "D" a student must achieve a minimum average grade of 60% on the course work requirements.

Failure to receive a "D" grade will result in a grade of "F"

*If you have a **documented learning disability** or other condition that may affect academic performance you should:*

- 1) *make sure this documentation is on file with Disability Services (SUB I, Rm. 4205; 993-2474; <http://ds.gmu.edu>) to determine the accommodations you need;*
- 2) *talk with me to discuss your accommodation needs.*

George Mason University is committed to providing a learning, living and working environment that is free from discrimination and a campus that is free of sexual misconduct and other acts of interpersonal violence in order to promote community well-being and student success.

**Attendance Policy: Please arrive to class on time. You are allowed ONE unexcused absence. Your second and following unexcused absences will lower your final grade by one letter grade. 5 unexcused absences will result in a final grade of "F".**

**Honor Code Statement:** *The integrity of the University community is affected by the*

*individual choices made by each of us. Mason has an Honor Code with clear guidelines regarding academic integrity. Three fundamental and rather simple principles to follow at all times are that: (1) all work submitted be your own; (2) when using the work or ideas of others, including fellow students, give full credit through accurate citations; and (3) if you are uncertain about the ground rules on a particular assignment, ask for clarification. No grade is important enough to justify academic misconduct. Plagiarism means using the exact words, opinions, or factual information from another person without giving the person credit. Writers give credit through accepted documentation styles, such as parenthetical citation, footnotes, or endnotes. Paraphrased material must also be cited, using MLA or APA format. A simple listing of books or articles is not sufficient. Plagiarism is the equivalent of intellectual robbery and cannot be tolerated in the academic setting. If you have any doubts about what constitutes plagiarism, please see me.*

#### Course Outline:

Week 1-Intro/Syllabus/DAWs/Musical Listening and Description Terms/Game Soundtrack Show and Tell/Midterm proposal HW

Week 2-Mid-term Proposals/Form Groups/Music Composition/Harmonic Progressions/Melody/Melody Activity/Cue Sheets/Songwriting HW/Group Cue Sheet HW

Week 3-Reason/Sequencing/MIDI Controllers/Redrum Sampling and Drum Instrument in Reason/Subtractor Synth/Quantization/Song Rendering HW

Week 4-Sound Libraries vs DIY Sounds Discussion/Logic Pro X/Samplers(EXS 24 instrument in Logic)/ SFXR Sound Synthesizer/SFXR Sampler HW

Week 5-Signal Processing Review/Mixing Board/Mixing/Automation/Bouncing

Week 6-Group Work/Voice Acting and Recording for Games Activity

Week 7-Rough Draft review and feedback

Week 8-Mid Term Presentations/Final Project Concepts HW

Week 9-Final Project Concept Pitch and Team Forming/Group Storyboard and Cue sheet HW

Week 10-Review Story Boards/Cue Sheets HW/Intro to Unity Audio

Week 11-Unity Audio/Team Unity Audio Toy in class assignment/Final Project Check-in

Week 12-Game Scoring Techniques and Tropes/Elias/Non-Linear Composition Tricks/Advanced Logic for Immersive Audio/Elias Composition HW

Week 13-Review Elias Compositions/WWISE/CUBE/Unity HW

Week 14-Group Work On Final Projects SFX and Immersion Check-in

Week 15-Turn in Wwise Tutorials/Group Work On Final Projects

Week 16-Portfolios DUE/Rough Draft Review and Feedback

Week 17-Final Project Presentations