

# Course Syllabus

MUCP 4910-001 and MUCP 5910-001

From Pong to Procedural Audio: Sound and Music in Video Games

## Course Overview

The course will give students a broad and in-depth understanding of the art, craft and business of video game audio, including music, foley, sound design, and voice-over. It will cover topics such as evolution of game audio, procedural audio, middleware solutions and compositional techniques specific to video game music, as well as related topics in the video game industry.

This course may be used to fulfill advanced composition credits for undergraduate composition majors and master's students with a major or related field in composition.

## Basic Information

*Instructor:* Panayiotis Kokoras (Office: MU 2004)

*Time and place:* Tuesday and Thursday 9:30 - 10:50 pm, MEIT (MU 1001)

*Email:* Panayiotis.Kokoras@unt.edu

*Phone:* 1(940) 565-4651

*Office hours:* Tuesday 1-3 p.m. or by appointment.

## Grading

Final grades will be based upon composition or research projects, supplementary assignments, presentation and attendance/class participation distributed as follows:

- Final Composition/Research project (40%):
- Class participation (60%):
  - Assignments: 20%
  - Presentation: 15%
  - Attendance: 25%

## Final Project

The final project will consist of one of the following: 1) a video game score of 3-7 minutes duration or 2) an analysis of a video game (5-10 pages) or 3) a research paper (5-10 pages) investigating related issues.

## Attendance / Participation

Class attendance is expected of all students. Participation and interaction with others is a critical component of an overall quality learning experience. For each seminar session students are expected to complete reading, listening, and score analysis assignments prior to the dates listed on the schedule below.

## Course Materials

Shared only to registered students through GoogleDrive, folder name: MUCP4910-5910

# COURSE SCHEDULE

DATES	TOPICS	ASSIGNMENT/FORMATIVE/CHALLENGE
01b   Aug 29	<b>Intro:</b> overview	#Game spotting
02a   Sep 03 02b   Sep 05	<b>Intro:</b> sound and music in video games <b>History:</b> Evolution of Games	#Pong #Mario
03a   Sep 10 03b   Sep 12	<b>History:</b> Technology <b>Guest</b>	#Waves Air
04a   Sep 17 04b   Sep 19	<b>Genres:</b> Types of music <b>Looping:</b> Layering	#Compose a 3-14 note theme <b>Formative</b> #Compose a 20" loop
05a   Sep 24 05b   Sep 26	<b>Looping:</b> Tensions, Stingers <b>Industry:</b> Sound/ Music in Video games	#Create Tensions
06a   Oct 01 06b   Oct 03	<b>Sfx:</b> Sound Design <b>Sfx:</b> Foley	#Sfx Generator #Halloween atmo
07a   Oct 08 07b   Oct 10	<b>Generative:</b> Music, Tools, Techniques <b>Dynamic:</b> Music, Types, Definition	#Compose a Generative Music Algorithm
08a   Oct 15 08b   Oct 17	<b>Interactive:</b> Music, Tools, Techniques <b>Adaptive:</b> Music, Tools, Techniques	#Designing interactive music
09a   Oct 22 09b   Oct 24	<b>Soundscape:</b> Sound, Tools, Techniques <b>Scoring:</b> Side Scroller Game	#Fmod Sandbox Development
10a   Oct 29 10b   Oct 31	<b>Scoring:</b> Epic Scoring, Ostinato, hits <b>Middleware:</b> Fmod - Unity	<b>Formative</b> Intro, loop, transition, loop, ouro
11a   Nov 05 11b   Nov 07	<b>Middleware:</b> Wwise <b>Procedural:</b> Sound, Tools, Techniques	<b>Final Project Thesis</b> #Procedural Audio Enviroments
12a   Nov 12 12b   Nov 14	Student Sort Presentations Student Sort Presentations	10 minutes each 10 minutes each
13a   Nov 19 13b   Nov 21	<b>Voice Over:</b> lip syncing <b>Game Analysis:</b> Scoring Limbo with Wwise	
14a   Nov 26 14b   Nov 28	<b>Game Analysis:</b> Music and Sound <i>Thanks Giving Break (no class)</i>	
15a   Dec 03 15b   Dec 05	<b>Music:</b> Game Music in Concert Halls Conclusion	
16a   Dec 10	Final Examinations	Final Project Upload 10AM-14PM

# Recommended Readings

## Reading

### Audio for Video Games

G.W Childs (2006) *Creating Music and Sound for Games*. Cengage Learning PTR.

Aaron Marks (2008) *The Complete Guide to Game Audio*. Focal Press.

Martin D. Wilde (2004) *Audio Programming for Interactive Games*. Focal Press

Karen Collins (2008) *Game Sound: An Introduction to the History, Theory, and Practice of Video Game Music and Sound Design*. The MIT Press.

Karen Collins (2008) *From Pac-Man to Pop Music*. Ashgate.

Aaron Marks and Jeannie Novak (2008) *Game Development Essentials: Game Audio Development*. Cengage Learning.

Rob Bridgett (2010) *From the Shadows of Film Sound: Cinematic Production & Creative Process in Video Game Audio*. Blurb

Richard Stevens & Dave Raybould (2011) *The Game Audio Tutorial: A Practical Guide to Sound and Music for Interactive Games*. Focal Press.

Ben Long *Game Audio 101: Mobile – The Insiders Guide to Music & Sound for Mobile Games*  
[http://www.gameaudio101.com/about\\_book.php](http://www.gameaudio101.com/about_book.php) <last accessed aug 2013>

Alexander Brandon (2004) *Audio for Games: Planning, Process, and Production*. New Riders Games.

George Alistair Sanger (2003) *The Fat Man on Game Audio – Tasty Morsels of Sonic Goodness*. New Riders Games.

Lucien King (2002) *Game On; The History and Culture of Videogames*. London: Laurence King Publishing Ltd.

### Sound Design

Eduardo Miranda (2002) *Computer Sound Design: Synthesis Techniques and Programming*. Focal Press.

Andy Farnell (2001) *Designing Sound*. The MIT Press.

Vanessa Theme Ament (2009) *The Foley Grail: The Art of Performing Sound for Film, Games, and Animation*. Focal Press.

Martin Russ (2008) *Sound Synthesis and Sampling*. Focal Press.

William Whittington (2007) *Sound Design and Science Fiction*. University of Texas Press.

Frank Dorritie (2003) *The Handbook of Field Recording*. Artistpro.

Ric Viers (2008) *The Sound Effects Bible: How to Create and Record Hollywood Style Sound Effects*. Michael Wiese Productions.

Richard Boulanger and Victor Lazzarini (2010) *The Audio Programming Book*. The MIT Press.

## Film Music

Jay Beck and Tony Grajeda (2008) Lowering the Boom: Critical Studies in Film Sound. University of Illinois Press.

Michel Chion (1994) Audio-Vision. Columbia University Press.

David Lewis Yewdall (2007) The Practical Art of Motion Picture Sound. Focal Press.

Elisabeth Weis and John Belton (1985) Film Sound: Theory & Practice. Columbia University Press.

Deena Kaye and James LeBrecht (2009) Sound and Music for the Theatre, Third Edition: The Art & Technique of Design. Focal Press.

## Video Game Music

See pdf handouts

## Software

Audiokinetic

<https://www.audiokinetic.com/>

FMOD

<http://www.fmod.org/>

Unity3d

<http://unity3d.com/>

## Links

<http://gamesound.org/>

<http://www.filmsound.org/>

<http://www.gamasutra.com/>

<http://www.audiogang.org/>

<http://captivating-sound.com/>

<http://www.gameaudiodesign.com/>

<http://videogameaudio.com/>

## Course Policies

### **Office of Disability Accommodation**

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the Office of Disability Accommodation website at <http://www.unt.edu/oda>. You may also contact them by phone at 940.565.4323.

### **Financial Aid Satisfactory Academic Progress (Graduates)**

A student must maintain Satisfactory Academic Progress (SAP) to continue to receive financial aid. Students must maintain a minimum 3.0 cumulative GPA in addition to successfully completing a required number of credit hours based on total registered hours per term. Students cannot exceed maximum timeframes established based on the published length of the graduate program. If a student does not maintain the required standards, the student may lose their financial aid eligibility.

If at any point you consider dropping this or any other course, please be advised that the decision to do so may have the potential to affect your current and future financial aid eligibility. Please visit <http://financialaid.unt.edu/satisfactory-academic-progress-requirements> for more information about financial aid Satisfactory Academic Progress. It may be wise for you to schedule a meeting with an academic advisor in your college or visit the Student Financial Aid and Scholarships office to discuss dropping a course being doing so.

### **Academic Integrity**

Academic Integrity is defined in the UNT Policy on Student Standards for Academic Integrity. Any suspected case of Academic Dishonesty will be handled in accordance with the University Policy and procedures. Possible academic penalties range from a verbal or written admonition to a grade of "F" in the course. Further sanctions may apply to incidents involving major violations. You will find the policy and procedures at: <http://vpaa.unt.edu/academic-integrity.htm>.

### **Student Behavior in the Classroom**

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Center for Student Rights and Responsibilities to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at: [www.unt.edu/csrr](http://www.unt.edu/csrr).

### **Student Evaluation of Teaching Effectiveness**

The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to students at the end of the semester, providing a chance to evaluate this course; further instructions will be provided at that time. You are strongly encouraged to complete this online survey prior to the end of the semester. For the Spring 2013 semester, the SETE will be open between November 19-December 8. To learn more about SETE, please visit the website at <http://sete.unt.edu>