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## Music 2708B: Music and Gaming

Winter 2023

**Overview.** An introduction to composing and producing music for video games using (i) library-based sounds, (ii) synthesis, (iii) various DSP tools, and (iv) industry-standard software for interactive sound systems (a/k/a *middleware*). Students will gain an understanding of the medium of gaming by exploring its (i) nonlinear musical framework as well as (ii) the ways game composition differs from other modalities.

**Course Prerequisites:** *None.* Unless you have either the prerequisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

***\*\*Please be advised: students who have never used a digital audio workstation (DAW) before, such as Pro Tools, Logic, Ableton, Fruity Loops, or similar software applications, will find it challenging to complete the final assignment for this course. As a result, students should possess at least rudimentary DAW skills before signing up for this course. No alternate assignment will be given for students who do not have access to a DAW.\*\****

**Course Format:** Online

**Course Materials.** Students will require the following materials:

- Wwise (software): they provide a **free license** for students (i.e., a non-commercial license) on their website
- Access to a DAW for sound/music creation (Logic X, Pro Tools, Ableton, Fruity Loops, others)
- Access to a Sound Library (Splice, Loopcloud, Noiiz, Looperman [free], Forums, Free Repositories, Redbull Academy [free], etc)
- A cell phone camera, webcam, or a similar way to record yourself (for video journal assignments)

*Please note: If students cannot access the above course materials, they will not be able to complete assignments and will, as a result, receive a grade of 0 in this course. It is each student's responsibility to maintain consistent access to the required course materials throughout the term. The instructor and/or Western University are not responsible for the student's ability (or, inability) to access the required course materials outlined above.*

In addition to the above list of course materials, students will require the following text:

- Shelvock, M. (2020). *Cloud-Based Music Production*. Routledge/Focal Press
  - Audio companion available at: [https://static.routledge.com/9780815353195/Chapters\\_1-5\\_audio\\_examples.zip](https://static.routledge.com/9780815353195/Chapters_1-5_audio_examples.zip)

**Evaluation.** Coursework (40%); Final Project (60%)

Coursework breakdown:

- Video Journals 1-3 (15%)
- Assignment 1 (10%)
- Assignment 2 (15%)

### **Email and Correspondence Policies**

- Instructor does not reply to email before 530pm Mon-Friday due to external obligations. Given the high volume of emails generated by online classes, I will respond within 72 hours.
- Due to the class size and format (i.e, online), the Instructor **will not be available for individualized consultation via video chat or phone**

### **Learning Outcomes**

*Music and Gaming* explores composition and sound design for video games. To do so, this course will help students develop a fundamental literacy of game composition by building essential musical competencies in *hearing* and *applying* techniques used by game composers and sound designers. In order to effectively study video game composition we cannot limit ourselves to study of sound fx, timbres, notes/harmonies, rhythms, and sonorities. We must also learn how game sounds and compositions are formatted to meet specific creative and technical requirements which are essential to the experience of playing videogames. For instance, it is equally important for today's game composers to create the music (and sounds) heard within a game, as it is for them to design this music in a modular capacity which can be later triggered by user interactions via game code. For this reason, game music cannot be studied in the same

way that one studies composition within the Western Art Music tradition (until, perhaps, sound engine mastery in tools like FMOD and Wwise become the norm in this genre). Instead, the creation of game music requires skill in routine production tasks such as sampling, synthesis, mixing, and mastering, as well as techniques for the implementation of sound within a game via a sound engine (i.e., Wwise). This course is designed to show students how the interaction of these different technological ecologies (digital production, digital composition, and sound engine implementation) creates the experience of game sound.

Today's game composers, like most other creative professionals, work in a variety of ways, but they often prefer project studios (also known as home studios) or ad-hoc setups to execute the bulk of their work. In addition, during the COVID-19 pandemic, even more game composers are working from home in this way. As a result, this course will help students develop literacy and competencies in game composition using the tools favoured by today's most relevant game composers, while also working with a similar environment as those who compose video game music as a professional craft (i.e., in a home studio or project environment). From this vantage point, students will develop the ability to think in a theoretical and critical capacity regarding what they hear and experience in video games. And, at the same time, students will learn methods for creating game sound which resembles the actions of actual game composers — a realm where laptops and software dominate over pen and staff paper.

This course is highly **experiential**, and, as a result, it draws from **practice-based** and **practice-led** frameworks for learning. In this way, students will develop (i) their game composition skills *per se*, (ii) their ability to discuss and think critically about issues in game composition through direct exposure to the craft, and (iii) their knowledge of one of today's most relevant culturally embedded musical practices. As a result, this course will help students investigate the ways that the act of videogame composition differs from songwriting, pop music production, and art music.

## COURSE SCHEDULE\*

### PART 1: GAME COMPOSITION METHODS

#### **Week 1 - Music & Motion Media; Music & Interactive Systems**

- *How does game composition differ from other creative modalities in music?*
- *Composing for interactivity, immersion, and engagement*
- **Lecture: [Video Link](#) — Music Today, Game Music and Immersion, Sound Design and Composition**
- **Discuss Assignment 1 (due next Thursday, before 7pm): Video Game Sound Journal**
- *Readings: Travis Scott and Fortnite Present: Astronomical (available at: <https://www.youtube.com/watch?v=wYeFAIVC8qU>)*
  - *Roblox: Lil Nas X Concert (available at: <https://www.youtube.com/watch?v=tKkfe79Rtu8>)*

- *Roblox and EDC* (available at <https://www.musicbusinessworldwide.com/roblox-latest-music-move-is-a-virtual-version-of-dance-festival-electric-daisy-carnival-featuring-50-artists/> )
- Article by Complex: “My Night at the Travis Scott ‘Fortnite’ Concert” (available at: <https://www.complex.com/music/2020/04/travis-scott-fortnite-concert-review> )
- Article by The Verge: “Fortnite is launching a concert series it hopes will become a ‘tour stop’ for artists” (available at <https://www.theverge.com/2020/9/8/21423004/fortnite-party-royale-concert-series-dominic-fike> )

## **Week 2 — Game Composition Methods — Intro to Cloud-based Music Production; Working with Sound Libraries**

- Lecture: [Video Interview](#) with game composer and lead sound designer **George Spanos** of Digital Extremes
- Lecture: [Video Link](#) — Introduction to Cloud-Based Music Production
- Readings: *Cloud-based Music Production* - Introduction
- **Assignment 1 Due: Video Game Sound Journal**

## **Week 3 — Game Composition Methods — Synthesis**

- Lecture: [Video Link](#) — Synthesis
- Readings: *Cloud-based Music Production* - Chapter 1
  - Synthesis and FX Creation
  - Synthesis and Melody/Harmony
  - Synthesis and the Creation of Percussion

## **Week 4 — Game Composition Methods — Sampling**

- Lecture: [Video Link](#) — Samples and Sampling
- Readings: *Cloud-based Music Production* - Chapter 2
  - Sampling and FX
  - Sampling and Melody/Harmony
  - Sampling and Percussion

## **Week 5 — Game Composition Methods — Mixing Digital Audio Compositions for Games and Motion Media**

- Lecture: [Video Link](#) — Mixing Sounds
- Lecture: [Video Link](#) — Mastering Audio

- *Readings: Cloud-based Music Production* - Chapter 3
  - Mixing and Mix Parameters
  - Mixing Music for Inclusion within Interactive Systems
  - How to Mix, How to Hear
  - Hearing for Your Audience
  - Psychoacoustics and Sound Art

### **Week 6 — Game Composition Methods — Mastering Digital Audio Compositions for Games and Motion Media**

- Lecture: [Video Interview](#) with game composer **Joshua Richardson** of Tiny Titan (50m)

### **Week 7 — READING WEEK — NO CLASS**

## **PART 2: INTERACTIVE SOUND DESIGN AND COMPOSITION**

### **Week 8 — Interactive Music Systems: Tying Together Game Sound Design and Composition**

- Lecture: [Video Interview](#) with **Emmet Hall** of Klei Videogames (50m)

### **Week 9 — Wwise: From Silence to Sound, & Designing a Soundscape**

- **FORMAT: Wwise Tutorial (See Owl)**
- Wwise 101: Lesson 1 and 2
- Wwise: **Video Journal #1 Due**
- Discuss Final Project
- *Instructor recommendation: begin final projects during week 9*

### **Week 10 — Wwise: Understanding Game Syncs, & Creating Space**

- **FORMAT: Wwise Tutorial (See Owl), and Live Q&A — Thursday 7pm**
- Wwise 101: Lesson 3 and 4
- Wwise: **Video Journal #2 Due**

### **Week 11 — Wwise: Understanding Audio Signal Flow, & Finalizing the Mix**

- **FORMAT: Wwise Tutorial (See Owl)**
- Wwise 101: Lesson 5, 6, and 7
- Wwise: **Video Journal #3 Due**

## **Week 12 — FINAL PROJECTS DUE**

- March 30th before midnight

**\*note: Please see online OWL site for the most up-to-date lesson plans**

### **Description of Final Project**

For their final projects, students will compose a music demo which could be imported and/or embedded into a videogame. The instructor will provide a 60s gameplay video clip from a commercially available videogame, and students will “score” this clip using a DAW of their choosing. Students will compose (i) sound effects, (ii) environmental/atmospheric sounds, and (iii) musical sounds which correspond to the visuals provided. More information about the Final Project will be made available during the term.

### **ADDITIONAL NOTES ON THIS COURSE**

*All students should read the following notes carefully in light of the current pandemic.*

i) **Course Prerequisites: None.** Unless you have either the prerequisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

ii) **Grading scale:** A+=90-100%, A=80-89%, B=70-79%, C=60-69%, D=50-59%, F=0-49%.

iii) **Academic Consideration for Student Absence & Missing Work (≥10%):** Students are responsible for making up any missed classes or assignments as soon as possible. The University recognizes that a student’s ability to meet their academic responsibilities may, on occasion, be impaired by medical illness. Illness may be acute (short term), or it may be chronic (long term), or chronic with acute episodes. The University further recognizes that medical situations are deeply personal and respects the need for privacy and confidentiality in these matters. However, in order to ensure fairness and consistency for all students, academic accommodation for work representing 10% or more of the student’s overall grade in the course shall be granted only in those cases where there is documentation indicating that the student was seriously affected by illness and could not reasonably be expected to meet their academic responsibilities.

Documentation shall be submitted, as soon as possible, to the Office of the Associate Dean, Undergraduate (TC210), together with a request for relief specifying the nature of the accommodation being requested. Students are directed to read the Senate policy on accommodation for medical illness at the following website for further details regarding requirements and procedures for the supporting documentation:

[https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_medical.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf)

Whenever possible, students who require academic accommodation should provide notification and documentation in advance of due dates, examinations, etc. Students must follow up with their professors and their Academic Counselling office in a timely manner.

iv) **Academic Consideration for Missing Work (<10%):** In cases where students miss work that is worth less than 10% of the total course grade (ie. two or fewer assignments) due to medical illness or compassionate grounds, if documentation is voluntarily submitted to the Associate Dean's office and the Associate Dean grants an accommodation, then the missed assignment(s) or quiz(zes) will be discounted in the calculation of the final grade for the course. If documentation is not voluntarily submitted then the missed assignment(s) will receive a grade of zero. Students who have been denied accommodation by an instructor may appeal this decision to the Associate Dean's office but will be required to present appropriate documentation.

v) **Academic Offences:** Submission of work with which you have received help from someone else (other than the course instructor or TA) is an example of plagiarism, which is considered a major academic offence. Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, as found at: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_undergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf)

vi) **Mental Health & Wellness:** Students that are in emotional/mental distress should refer to the Health and Wellness at Western page (<https://www.uwo.ca/health/>) for a complete list of options about how to obtain help or to go to the Wellness Education Centre located in UCC room 76. **Students in crisis in need of immediate care are directed to go directly to Student Health Services in UC11 or to click on the green "I Need Help Now" button on the Health and Wellness page above.**

vii) **Accommodation for Students with Disabilities:** Students work with Accessible Education Western (AEW, formerly SSD) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The accommodation policy can be found here: [https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/Academic%20Accommodation\\_disabilities.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic%20Accommodation_disabilities.pdf)

viii) **Religious Accommodation:** Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the Western Multicultural Calendar.

<http://multiculturalcalendar.com/ecal/index.php?s=c-univwo>

ix) **Contingency Plan:** Although the intent is for this course to be delivered in-person, the changing COVID-19 restrictions may necessitate some or all of the course to be delivered online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will **not** change. Any assessments affected will be conducted online as determined by the course instructor.

x) **Gender-Based and Sexual Violence:** Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence, either recently or in the past, you will find information about support services for survivors, including emergency contacts at [https://www.uwo.ca/health/student\\_support/survivor\\_support/get-help.html](https://www.uwo.ca/health/student_support/survivor_support/get-help.html). To connect with a case manager or set up an appointment, please contact [support@uwo.ca](mailto:support@uwo.ca) or call 519 661-3568

xi) **Recording of Online Activities:** All of the remote learning sessions for this course will be recorded. The data captured during these recordings may include your image, voice recordings, chat logs and personal identifiers (name displayed on the screen). The recordings will be used for educational purposes related to this course, including evaluations. The recordings may be disclosed to other individuals participating in the course for their private or group study purposes. Please contact the instructor if you have any concerns related to session recordings.

Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.

xii) **Online Etiquette:** Some components of this course may involve synchronous online interactions. To ensure the best experience for both you and your classmates, please observe the following general considerations of “netiquette”:

- Keep in mind the different cultural and linguistic backgrounds of the students in the course.
- Be courteous toward the instructor, your colleagues, and authors whose work you are discussing.
- Be respectful of the diversity of viewpoints that you will encounter in the class and in your readings. The exchange of diverse ideas and opinions is part of the scholarly environment.

Note that disruptive behaviour of any type during online classes, including inappropriate use of the chat function, is unacceptable. Students found guilty of “Zoom-bombing” a class, or of other serious online offenses, may be subject to disciplinary measures under the Code of Student Conduct.

