

Class: Tuesday, Period 9-10 (4:05-6pm), MUB 231**Professor:** Dr. Tina Tallon (tallonc@ufl.edu), she/hers
*(please feel free to call me Tina!)***Office Hours:** Th Period 8, or by appointment (MUB 306 or Zoom)

COURSE DESCRIPTION

This course explores composing and coding for and performance with live electronic musical instruments. Topics and activities will include designing live electronic musical instruments, crafting musical works for these instruments, and live performance of these pieces with these instruments. We will also cover fundamentals of sound synthesis, audio programming, instrument design, human-computer interaction, sound-driven multimedia, data sonification, and electronic concert production and documentation. Students will perform their works and works of their colleagues during a culminating concert experience at the end of the semester. Note: participation in the final concert, which will take place on Dec 5th during class time, is required.

REQUIRED MATERIALS

Textbooks

There are no required textbooks, and any resources (such as code, recordings of in-class demonstrations, performance materials, and documentation) will be posted on the course's Canvas page.

Software

Students are welcome to use whatever combinations of software and interfaces that allow them to create the electronic instruments and performance environments that best express their intentions. That said, for students with no music technology experience, the following free, open-source pieces of software will be taught:

- Pure Data: <http://msp.ucsd.edu/software.html> (free)
- Reaper: <https://www.reaper.fm/download.php> (free)
- LMMS: <https://lmms.io/> (free)

Hardware

Access to some sort of computing device with the ability to output audio signals will be crucial. If this is not possible, please let me know ASAP and we will try to work with the administration to get you what you need. While no additional hardware is necessary outside of a computer, if you would like to purchase a microphone for high-quality recording of audio or performance interface, we will discuss what options might suit your needs in class.

GRADING

Assignment Breakdown

The course will primarily consist of the composition of two pieces (a solo/chamber piece and a piece for the full ensemble) and engagement and participation over the course of the semester, including attending all rehearsals, help with all setup/teardown of equipment during rehearsals and performance, and performing and documenting other colleagues' work in the final performance. Additionally, students will write a short 1000-word analysis of a piece for laptop orchestra or electronic music ensemble.

Solo or Chamber piece	10%
Written analysis of a *LORk piece	10%
Large Ensemble piece	30%
-Composition	10%
-Instrument Design	10%
-Documentation/Tech Rider	10%
Attendance	50%
-In-class Rehearsals	10%
-Final Performance	30%
-Setup/Teardown/Documentation	10%

Assignment Submission

All projects are expected to be completed on time and submitted in their final designated form (this may vary from assignment to assignment) along with any accompanying source materials in a .zip folder in the appropriate folder on Canvas prior to class on the day that they are due. Files should use the naming convention "LastName_ProjectName.zip" in order to make downloading and grading easier. Feedback will be given within 1 week of on-time assignment submission. While there are no penalties for late assignments, keep in mind that they may receive abbreviated (or no) feedback from the instructor if they are not submitted on time, and/or may not receive rehearsal or performance priority (which may negatively impact your grade).

Attendance and Engagement/Participation Policy

Because this is a performing ensemble, students are expected to attend and be engaged in every class and rehearsal/performance. Materials from lecture-based portions of classes (such as slide decks and demonstrations) will be recorded and made available on Canvas. Because of the realities of living in an ongoing global pandemic, no doctors' notes are required for missed classes, and you do not need to notify me in advance if you will not be in class (though I will likely check in with you just to make sure you're okay and have what you need). While we will make every attempt to adjust the schedule to accommodate absences from rehearsals/workshopping sessions because of illness, there is no guarantee that your piece will receive the same amount of rehearsal time as the others if you are absent on these days, and/or you may be replaced in the ensemble in which you are performing. More than three absences for rehearsals, workshopping sessions, or performances with no communication or effort to support others in the class (i.e. through documentation or other production assistance) will result in a failing Attendance grade. Students are very strongly encouraged to wear masks for their safety and the safety of others, and please do not come to class if you are sick, regardless of the severity of your symptoms. What gave you only a headache may put your professor in the hospital - and I promise to do everything in my power to help get you up to speed on any class that you've missed. If you must miss a major rehearsal or final performance because of illness, an alternative

assignment will be provided (such as editing documentation for other pieces). That said, because class discussions, rehearsal, and in-class workshopping and experimentation will comprise an important part of the course, all members of the class are expected to treat each other with the utmost respect and professionalism, whether physically in the classroom, during office hours, or online. We are all here to learn, so please do not hesitate to ask questions or share your opinions or experiences. At some points during the course, challenging and/or uncomfortable subjects may be discussed. Students are in no way, shape, or form evaluated on their positionality with respect to these subjects, and are expected to form their own opinions based upon careful analysis of and reflection on relevant scholarship, data, and inquiry - whatever forms those may take. We will study a variety of sources, some of which will present viewpoints that differ from our own, but we are expected to engage with them in an objective and neutral manner and evaluate them using all of the tools at our disposal in the spirit of developing our analytical toolbox. However, discriminatory or threatening language will not be tolerated and anyone who creates a toxic work environment for any other members of the community will be asked to leave.

Grading Scale

Letter	%	General Grading Criteria (specific assignment rubrics TBD)
A	93 - 100%	Excellent. Well-prepared and thorough. Shows creativity, diligence, or insight beyond the basic requirements
A-	90 - 92.99%	
B+	87 - 89.99%	Good. Meets basic expectations. Demonstrates a basic understanding of the material, perhaps with minor flaws
B	83 - 86.99%	
B-	80 - 82.99%	
C+	77 - 79.99%	Fair. Completes the assignment, but demonstrates a less-than-firm grasp of the material; missing elements; multiple technical errors
C	73 - 76.99%	
C-	70 - 72.99%	
D+	67 - 69.99%	Poor. Demonstrates a lack of effort or understanding of the material. Multiple errors, missing elements, or failure to follow assignment instructions
D	63 - 66.99%	
D-	60 - 62.99%	
E	<60%	Fail. Missing, incomplete, plagiarized, or incoherent

Academic Integrity

By submitting assignments, you certify that all work is your own (or that of your group, in the case of group assignments). If you use elements of someone else's work (such as audio/video samples, datasets, or code), please be sure to credit your sources the same as you would in a journal article or other academic publication. Please refer to UF's honor code to review criteria and consequences for plagiarism and other instances of academic misconduct: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>. We will have in-depth discussions about intellectual property, labor, and automation, and the implications for scholarly and artistic work in the 21st century (particularly in the context of AI). Sometimes, the concept of authorship can be murky - and that's

okay! We're here to explore those ambiguities together, and as long as we do our best to ensure that we are giving as much credit as we possibly can where credit is due, we shouldn't have any problems.

RESOURCES

At the end of the day, my first priority is for your physical and mental health. College and grad school can be an extremely difficult time - and especially so now. We are all exhausted, and we're all trying our best. If there is ever any way that I can best support you, please do not hesitate to reach out - open lines of communication are crucial in order to make sure that everyone can get the help they need in a timely manner. I will try my very best to respond to all emails within 24 hours during the week, but in the case that I haven't responded yet and you need immediate help, here are some resources at UF that may be useful to you throughout the semester:

- UF Counseling & Wellness Center, 401 Peabody Hall, 352-392-1575, for personal and career counseling: <https://counseling.ufl.edu/>
- UF U Matter, We Care, 352-392-2273, for mental health and personal counseling: <https://umatter.ufl.edu/>
- UF Crisis and Emergency Response Center (CERC), 352-392-1575: <https://counseling.ufl.edu/services/crisis/>
- UF Career Connection Center, 352-392-1601, for career development assistance and counseling: <https://career.ufl.edu/>

Students Requesting Accommodations

I will do my very best to provide whatever accommodations I can to help you be successful, no questions asked. However, there may be cases where we both need support to set us up for success, and students requesting classroom accommodation through official means (which I do not require, though which may be helpful to have on record) should first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. To request classroom accommodations, you can start by visiting <https://disability.ufl.edu/> or contacting the Assistant Dean of Students/Director of the Disability Resources Program at P202 Peabody Hall, or call 392-1261 (V), 392-3008 (TDD).

Evaluations

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

If you ever have any questions, comments, or feedback about anything in class, please do not hesitate to send me an email and/or approach me after class! I am always looking for new ways to make the class more useful, relevant, and effective, so please share your experiences with me!

Thanks for reading, and I look forward to a great semester with all of you!

WEEKLY CLASS SCHEDULE

NB: this schedule is likely to change as current events, student interest, and group pacing dictates. Thanks in advance for your flexibility!

WEEK 1: OVERVIEW AND INTRODUCTION

Review of syllabus; introductions to other ensemble members; basic data types and signal flows in electronic music ensembles

Info sheet Assigned

WEEK 2: MUSICAL DATA STRUCTURES FOR PERFORMANCE

Music encoding, symbolic and audio representations of music, MIDI basics, basic feature extraction and parametrization; intros to Pure Data, Reaper, and LMMS

Info sheet Due

Solo/Chamber Composition Assigned

WEEK 3: NOTATIONAL STRATEGIES

Study of laptop orchestra and electronic music ensemble repertoire; form, structure, communication of sonic priorities; best practices for writing documentation and tech riders

Written Analysis Assigned

WEEK 4: CONCERT PRODUCTION AND ELECTROACOUSTIC REHEARSAL STRATEGIES

How to run tech for a complex electroacoustic concert with multiple setups; basic documentation schema for maximizing post-production flexibility

WEEK 5: SOLO/CHAMBER COMPOSITION WORKSHOPPING

In-class workshoping and feedback session for sketches of solo/chamber compositions

WEEK 6: FUNDAMENTALS OF HUMAN-COMPUTER INTERACTION

Introduction to human-computer interaction; different types of HCI interfaces; incorporating sensors, computer vision elements, and Arduino-driven components

Large Ensemble Composition Assigned

WEEK 7: SOLO/CHAMBER COMPOSITION REHEARSAL

In-class rehearsal of revised solo/chamber compositions

Solo/Chamber Composition Due

WEEK 8: SOLO/CHAMBER COMPOSITION PERFORMANCES/RECORDINGS

In-class performance and documentation of solo/chamber compositions

WEEK 9: NETWORKED PERFORMANCE TOOLS AND STRATEGIES _____

Tools for networking devices; performance of piece for wifi-enabled networked devices

Written Analysis Due

WEEK 10: TELEMATIC PERFORMANCE TOOLS AND STRATEGIES _____

Tools for telematic performance and collaboration (both temporal and spatial separation); performance of telematic piece from different rooms

WEEK 11: LARGE ENSEMBLE COMPOSITION WORKSHOPPING _____

Initial rehearsal and feedback session of large ensemble compositions

WEEK 12: DOCUMENTATION TOOLS AND STRATEGIES _____

Introduction to audio-visual arts documentation; basic multi-camera video editing and syncing with audio

WEEK 13: MULTIMEDIA EXTENSIONS AND DATA SONIFICATION _____

Translating sonic data to other realms (video, lighting design, haptics, other immersive technologies) and vice versa; data sonification

WEEK 14: LARGE ENSEMBLE COMPOSITION REHEARSAL _____

Rehearsal of revised pieces; preliminary documentation session

Large Ensemble Composition Due

WEEK 15: FINAL CONCERT _____

Final Concert