

Composition of Electroacoustic Music (MUC 4401 & 6444)

University of Florida Spring 2022

Dr. Scott Lee - scott.lee@ufl.edu

M/W/F 9:35 -10:25 PM, MUB 147

Office: MUB 339 Office Hours: TBA

How to get in touch with me:

For short questions: E-mail is best. E-mails will generally be answered within 24 hours of receipt, except on weekends.

For everything else: Come to office hours or make an appointment. Office hours are a chance for you to get help on assignments, go over material covered in class, talk about connections between class material and other ideas, and so on. I strongly encourage you to take advantage of this time.

Course Description and Goals:

An introduction to computer music using the visual programming environment Max (formerly Max/MSP), through tutorials, guided exercises, in-class instruction, assignments, and two composition projects. Students will gain proficiency in a number of topics, including MIDI sequencing, generative and algorithmic composition, digital signal processing, synthesis, and interactive computer performance. Students will also discover repertoire through the creation of a listening list over the course of the semester.

Required Course Materials

A licensed copy of Max 8 on personal computer. Available at <https://cycling74.com>

Begin with the 30 day trial, then either purchase a \$250 permanent academic license (recommended, comes with \$99 upgrades to future versions) or the \$59 annual academic subscription.

Optional Additional Resources:

Cipriani, Alessandro and Maurizio Giri. *Electronic Music and Sound Design: Theory and Practice with Max 7 – Volume 1 (4th Edition)*. Rome: Contemponet, 2019.

Roads, Curtis. *The Computer Music Tutorial*. Cambridge: MIT Press, 1996. (UF Library: MT56 .R6 1996)

Other Course Materials

Access to a digital audio workstation (Reaper, Logic Pro, Pro Tools, Ableton, etc.)

Headphones

USB Flash Drive

Digital Resources

We will make use of Canvas for communication and assignments <https://ufl.instructure.com/>

Please check it frequently.

Attendance

Students are expected to attend all regularly scheduled classes. Attendance is critical in this course since we only meet once each week. Each unexcused absence over one will result in a two-point deduction from your final grade. Any student with four or more unexcused absences will fail the course. An excused absence is an approved UF event, a family emergency, or an illness. If more than one

absence results from an extended illness, a doctor's note will need to be provided for those absences to be excused.

Students knowing in advance that they will miss a class must be in contact **beforehand via email**. Please do not schedule non-urgent doctor's appointments during class time. In the case of an absence (excused or unexcused), that student is responsible for determining what material was covered, and what assignments were given.

Tardy Policy

Attendance will be taken at the beginning of class. Students who are not present when I take attendance will be marked as tardy. Three tardies will count as one unexcused absence. There are no excused tardies.

Evaluation:

Students will be evaluated by participation & preparation, projects, papers, and presentations.

Participation & Preparation:	10%
Listening List:	10%
Assignments:	40%
Projects:	40%

Scale:

A = 93-100 / A- = 90-92 / B+ = 87-89 / B = 83-86 / B- = 80-82 / C+ = 77-79 / C = 73-76 C- = 70-72 / D+ = 67-69 / D = 66-65 / D- = 63-64 / E = 0-62

Homework Policy:

You are expected to complete assigned tutorials (see class schedule below) before the class periods for which they are assigned. Assignments will be given either in class or via Canvas and should be completed on time. Students must come to class with assignments on their computers and be prepared to present them in class. If you are unable to fully participate in class because you failed to complete the assignments or tutorials for a given day, your grade in the class will be adjusted accordingly.

Late Assignment Policy:

Late assignment submissions (not including late submissions due to excused absences) will be accepted with a grade deduction of 10% for the first day late and a 5% further reduction for each additional day the assignment is late. Assignment due-date extension requests will be assessed on a case-by-case basis, and should be requested via e-mail at least 24 hours in advance of the original due date.

Listening List:

Over the course of the semester, students will create an annotated listening list of 10 pieces, performances, installations, interactive performance patches, etc. that use Max or live/interactive electronics. The pieces should be of personal interest to the students, and students will submit their list and present their favorites to the class on April 13th.

UF Student Honor Code

You are required to abide by the Student Honor Code. Any violation of the academic integrity expected of you will result in a minimum academic sanction of a failing grade on the assignment or assessment. Any alleged violations of the Student Honor Code will result in a referral to Student Conduct and Conflict Resolution. Please review the Student Honor Code and Student Conduct Code at <http://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>

Technology Policy:

Your attention is your most valuable asset; use it to the best of your ability. I reserve the right to dock your grade and/or ask you to leave class if you are inappropriately using technology in class.

COVID-19 Policy

Masks are expected in class at all times. If you are experiencing symptoms that could potentially be attributed to COVID-19, please do not come to class and be in touch via e-mail.

Students Requesting Accommodations due to Disabilities

Students requesting classroom accommodation must 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, contact 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/>.

Max Resources:

Cycling '74: <https://cycling74.com>

Max Objects Database: <http://www.maxobjects.com/>

Software Max and MSP Patch Libraries:

http://www.chikachikabowbow.com/Music/Computers/Software/Max_and_MSP/Patch_Libraries/

Real Time Composition Library: <http://www.essl.at/works rtc.html>

Course Units

- I. Max Basics
- II. MIDI & Generative Composition
- III. Digital Signal Processing
- IV. Advanced Applications

Schedule below (subject to change)

Week	Class	Date	Day	Unit	Topic	Tutorials
1	1	1/5	Wed	Max Basics	Intro: Course Overview, Navigating Max, Help Files, Resources	
	2	1/7	Fri		Intro to Max Programming: Objects, Messages, Patching, and Printing	Tutorials 1-2
2	3	1/10	Mon		Data Types: Numbers, Lists, and Math, Basic Scaling	Tutorials 3 & 6
	4	1/12	Wed		Order of Operations, Hot and Cold Inlets, Inspector, Metro & Toggle	Tutorials 4-5
	5	1/14	Fri		Numerical User Interfaces, Keyboard and Mouse Input, Gates/Switches	Tutorials 7, 8, & 21
3	6	1/19	Wed		Lab	
	7	1/21	Fri		Drawing/Random Generators	Tutorials 9-10
4	8	1/24	Mon		Procedural Drawing	Tutorial 11
	9	1/26	Wed	MIDI &	Intro to MIDI & MIDI Controllers	MIDI 1-2
	10	1/28	Fri	Generative	MIDI Sequencing and Data Storage	MIDI 3-5
5	11	1/31	Mon	Composition	Lab	
	12	2/2	Wed		Time in Max/Logic Functions	Tutorial 19
	13	2/4	Fri		Lab	
6	14	2/7	Mon		List Processing and Sorting	Data Tutorials 1 & 5
	15	2/9	Wed		Lab	
	16	2/11	Fri		Probability	Tutorial 17
7	17	2/14	Mon		Routing and Data Storage	Tut. 18 & Data Tut. 2
	18	2/16	Wed		Lab	
	19	2/18	Fri		Routing and Data Storage continued	Tutorials 16 & 20
8	20	2/21	Mon		Lab - Midterm Presentations	
	21	2/23	Wed	Digital Signal	Intro to MSP - Digital Audio and Signal Processing	MSP Basic Tutorials 1-2
	22	2/25	Fri	Processing	Intro to MSP Continued	MSP Basic Tutorials 3-4
9	23	2/28	Mon		Lab	
	24	3/2	Wed		Additive and Modulation Synthesis	Synthesis Tutorials 1-3

	25	3/4	Fri		Additive and Modulation Synthesis Continued	Synthesis Tutorials 4-5
10	26	3/14	Mon		Lab	
	27	3/16	Wed		Samplers	Sampling Tut. 1-3 & 6
	28	3/18	Fri		Delays	Delay Tutorials 1-3
11	29	3/21	Mon		Lab	
	30	3/23	Wed		Filters	Filter Tutorials 1-2
	31	3/25	Fri		Filters	Filter Tutorials 3-5
12	32	3/28	Mon		Lab	
	33	3/30	Wed		MIDI and MSP	MIDI and MSP 1-3
	34	4/1	Fri		Polyphony and Granular Synthesis	Polyphony Tut. 1-2
13	35	4/4	Mon		Lab	
	36	4/6	Wed	Advanced	Multi-channel audio	
	37	4/8	Fri	Applications	3 rd Party Plugins & Max for Live Objects	MSP Plugin Tut. 1-3
14	38	4/11	Mon		Lab	
	39	4/13	Wed		Listening-List Presentations	
	40	4/15	Fri		Advanced Patch Architecture and Organization	Tut. 15 & Pattr Tut. 1
15	41	4/18	Mon		Standalones and Collectives	
	42	4/20	Wed		Final Project Presentations	