Electronic Synthesizer Techniques, MTEC 474a
Course Syllabus Spring 2019

Instructor:

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Goal:
It is the goal of this course that each student—upon successful completion—gains a working knowledge of electronic synthesizers and the components of the synthesis process (oscillators, filters, envelope generators, etc.) for the creation, shaping, and design of sound. Steve Duda's Serum synthesizer will be our primary tool for this class. Each computer in the lab has Serum installed, you will not need to purchase this synthesizer plug-in.

Required Online Coursework:
www.Syntorial.com Synthesizer training software.
There will be weekly Syntorial exercises with short quizzes at the beginning of each class.
Syntorial includes a fully functional software synthesizer and training software.
Syntorial is **not** installed on the lab computers. You will need to purchase this software on your personal laptop, iPad or home computer for your weekly homework assignments.
Promo code: USCSYN (40% off, $77.99 is your price)

How I teach: I prefer to give students maximum lab time during my classes. Instead of a traditional lecture I will have exercises that each student will go through at their own pace. Each class will start with a short online quiz based on the Syntorial homework sections. After you complete the quiz you will download the exercise for that day, complete the guided patch assignments and turn in your patches before the end of class time for me to review. Most classes will give you some time at the end to experiment on your own as well. Please ask me questions during lab time. This is a basic, beginning class and there is no such thing as a dumb question.

You must have headphones for every class! STRONGLY recommend the Sony MDR-7506 headphones or similar. They are the standard headphone for all MTEC and MUIN courses. If you plan to take any other courses in these areas, you will need these headphones.

Additional Resource: Rick Schmunk has a great beginning Serum course on Blackboard. Definitely worth checking out if you want to review or get a little ahead during the semester.

https://www.lynda.com/Serum-tutorials/Learning-Serum-soft-synth-plugin/789010/5020622-4.html?org=usc.edu

Course Outline • Syntorial Quiz Schedule

Date	Class Topic	Syntorial Section Quiz
1/7	Course Introduction; Syntorial, Serum	
1/14	Oscillators and Sound Sources	1-3
1/21	**No Class – Martin Luther King**	
1/28	Wavetables	4-6
2/4	Noise Oscillator	7-9
2/11	Filters	10-12
2/18	**No Class – President's Day**	
2/25	LFO	13-15
3/4	Envelopes and Modulation	16-18
3/11	**No Class – Spring Recess**	
3/18	Modulation Matrix and LFOs	19-21
3/25	**MIDTERM EXAM** – Patch Assignments and a Test covering Syntorial lessons 1 - 21	**1 - 21**
4/1	Matrix and LFO	22-24
4/8	FX Tile	25-27
4/15	Custom Wavetables	28-30
4/22	Gates and Arpeggiation - Modulation Sources	31-33
4/29	**No Class – Study Days**	
5/8	**Final Exam Due** – Will be a take home quiz and Serum patches that need to be completed during open lab times.	

Communication and Online Materials:
Please make it a habit to check your USC email account. If you do not regularly use that account, make sure you have it forwarded to the account you do use. Any emails I send to the class will use the USC email account. All course materials, including slides, audio examples, handouts, and assignments, as well as class grades will be available in Blackboard (https://blackboard.usc.edu). Be sure to check Blackboard if you have to miss a class. You are responsible for any materials presented and assignments made even if you are not in class that day.

Grade Breakdown:
- Assignments and Patches   45%
- Online Reading Quizzes   15%
- Midterm Exam   20%
- Final Exam   20%

Academic Conduct
Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards* https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* http://equity.usc.edu or to the *Department of Public Safety* http://adminopsnet.usc.edu/department/department-public-safety. This is important for the safety of the whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* http://www.usc.edu/student-affairs/cwm/ provides 24/7 confidential support, and the sexual assault resource center webpage http://sarc.usc.edu describes reporting options and other resources.

Support Systems
- A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more.
- Students whose primary language is not English should check with the *American Language Institute* http://dornsife.usc.edu/ali, which sponsors courses and workshops specifically for international graduate students.
- *The Office of Disability Services and Programs* http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations.

Emergency Preparedness/Course Continuity in a Crisis:
If an officially-declared emergency makes travel to campus infeasible, *USC Emergency Information* http://emergency.usc.edu will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.