

Sound Synthesis and Audio Processing

Course: AET 341, Unique: 20735

Spring 2019
Room MRH 3.124
MW, 3:30-5pm

Instructor: Chris Ozley, DMA
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Office Hours: Office: DFA 4.134 (AV Studio)
Friday, 1-2pm

I. Rationale

This lecture/lab course is designed to introduce students to the concepts and current trends for virtual instruments. Looking closely at Kontakt, Serum, and many other industry-leading tools, students will learn how to create samplers and design their own synths, while also learning to “orchestrate” musical ideas. Students who successfully complete the course will be skilled in using virtual instruments to produce and arrange in a variety of contemporary musical settings.

Course Prerequisite(s): AET 305 Foundations of Music Technology

II. Course Aims and Objectives

By the end of this course, students will:

- Utilize industry-leading samples and synths in an effective manner.
- Create their own sampler instruments for use in a musical setting.
- Understand how to arrange a complex composition from pre-existing MIDI data.
- Think critically about how to design a synth for a specific musical purpose.
- Evaluate virtual sounds with greater sonic acuity.

III. Tentative Course Schedule

This schedule is subject to change at the discretion of the instructor. Students will be notified of such changes via email.

Week 1	01/23/2019	Course Introduction
Week 2	01/28/2019 01/30/2019	Sampler: Kontakt
Week 3	02/04/2019 02/06/2019	Project 1: Instrumental arrangement
Week 4	02/11/2019 02/13/2019	Kontakt Advanced Topics

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Week 5	02/18/2019 02/20/2019	Project 2: Kontakt instrument design
Week 6	02/25/2019 02/27/2019	Synths: FM8, intro to Absynth
Week 7	03/04/2019 03/06/2019	Absynth & Form
Week 8	03/11/2019 03/13/2019	Midterm Project: Production stingers
Week 9	03/18/2019 03/20/2019	SPRING BREAK
Week 10	03/25/2019 03/27/2019	Drum samplers: Ultrabeat and Battery
Week 11	04/01/2019 04/03/2019	Battery (finish), Reaktor Blocks
Week 12	04/08/2019 04/10/2019	Project 3: Electronic piece remix
Week 13	04/15/2019 04/17/2019	Wavetable synths: Serum and Massive
Week 14	04/22/2019 04/24/2019	Serum and Massive Advanced Topics
Week 15	04/29/2019 05/01/2019	Project 4: Synth design
Week 16	05/06/2019 05/08/2019	Workshops & In-class presentations
Week 17	05/13/2019	Final Project DUE (1 pm)

IV. Course Requirements

Class attendance and participation policy:

Regular and punctual attendance at all classes is required. Attendance is taken at the beginning of every class. Absences of each student are recorded without exception from the official date of

her/his enrollment. Both tardiness and early departure from class are forms of absenteeism. 15 minutes late to the start of class will constitute a tardy. At the end of each class, tardy students must make the instructor aware of their attendance or they will be marked as absent. Leaving class before being dismissed by your professor will constitute an early departure. Two instances of tardiness or early departure equal one absence. A class in which a student is tardy and departs early on the same day is considered an absence. If a serious medical or personal situation occurs affecting attendance, please discuss it with your professor.

Course Readings/Materials:

I will post reading materials as necessary.

Supplies needed:

Over-the-ear headphones and external hard drive. REQUIRED every class meeting!

Use of *Canvas* in class:

In this class I use *Canvas*—a Web-based course management system with password-protected access at <http://courses.utexas.edu>—to distribute course materials, to communicate and collaborate online, to post grades, to submit assignments.

V. Grading Procedures

Grades will be based on:

1. Projects/Quizzes	50%
2. Final Project	25%
3. Midterm Project	15%
4. Class Participation /Attendance	10%

Grading Scale:

Final grades will be determined on the basis of the following rubric. Please note: to ensure fairness, all numbers are absolute, and will not be rounded up or down at any stage. Thus a B- will be inclusive of all scores of 80.000 through 83.999. The University does not recognize the grade of A+.

A = 94-100

A- = 90-93

B+ = 87-89

B = 84-86

B- = 80-83

C+ = 77-79

C = 74-76

C- = 70-73

D+ = 67-69

D = 64-66

D- = 60-63

F = 0-60

Late/Missed Assignments:

If you miss an examination or an assignment deadline due to a serious, documented medical or personal situation, I will give you an opportunity to complete the work within a reasonable time. Otherwise, late assignments will receive a maximum grade value of 50%. **May 8th** is the last call for any late assignments from the semester (graded at 50% maximum value).

VI. Academic Integrity

Each student in the course is expected to abide by the University of Texas Honor Code: "As a student of The University of Texas at Austin, I shall abide by the core values of the University and uphold academic integrity." **Plagiarism is taken very seriously at UT.** Therefore, if you use words or ideas that are not your own (or that you have used in previous class), you must cite your sources. Otherwise you will be guilty of plagiarism and subject to academic disciplinary action, including failure of the course. You are responsible for understanding UT's Academic Honesty and the University Honor Code, which can be found at the following web address: http://deanofstudents.utexas.edu/sjs/acint_student.php

VII. Other University Notices and Policies

Use of E-mail for Official Correspondence to Students

All students should become familiar with the University's official e-mail student notification policy. It is the student's responsibility to keep the University informed as to changes in his or her e-mail address. Students are expected to check e-mail on a frequent and regular basis in order to stay current with University-related communications, recognizing that certain communications may be time-critical. It is recommended that e-mail be checked daily, but at a minimum, twice per week. The complete text of this policy and instructions for updating your e-mail address are available at <http://www.utexas.edu/its/help/utmail/1564>.

Q drop Policy

If you want to drop a class after the 12th class day, you'll need to execute a Q drop before the Q-drop deadline, which typically occurs near the middle of the semester. Under Texas law, you are only allowed six Q drops while you are in college at any public Texas institution.

For more information, see: <http://www.utexas.edu/ugs/csacc/academic/adddrop/qdrop>

University Resources for Students

Your success in this class is important to me. We will all need accommodations because we all learn differently. If there are aspects of this course that prevent you from learning or exclude you, please let me know as soon as possible. Together we'll develop strategies to meet both your needs and the requirements of the course. There are also a range of resources on campus:

Services for Students with Disabilities

This class respects and welcomes students of all backgrounds, identities, and abilities. If there are circumstances that make our learning environment and activities difficult, if you have medical information that you need to share with me, or if you need specific arrangements in case the building needs to be evacuated, please let me know. I am committed to creating an effective learning environment for all students, but I can only do so if you discuss your needs with me as early as possible. I promise to maintain the confidentiality of these discussions. If appropriate, also contact:

Services for Students with Disabilities, 512-471-6259 (voice) or 1-866-329- 3986 (video phone).

<http://ddce.utexas.edu/disability/about/>

Counseling and Mental Health Center

Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

All of us benefit from support during times of struggle. You are not alone. There are many helpful resources available on campus and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is often helpful.

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If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support.

<http://www.cmhc.utexas.edu/individualcounseling.html>

The Sanger Learning Center

Did you know that more than one-third of UT undergraduate students use the Sanger Learning Center each year to improve their academic performance? All students are welcome to take advantage of Sanger Center's classes and workshops, private learning specialist appointments, peer academic coaching, and tutoring for more than 70 courses in 15 different subject areas. For more information, please visit <http://www.utexas.edu/ugs/slc> or call 512-471-3614 (JES A332).

Undergraduate Writing Center: <http://uwc.utexas.edu/>

Libraries: <http://www.lib.utexas.edu/>

ITS: <http://www.utexas.edu/its/>

Student Emergency Services: <http://deanofstudents.utexas.edu/emergency/>

Behavior Concerns Advice Line (BCAL)

If you have concerns about the safety or behavior of fellow students, TAs or Professors, call BCAL (the Behavior Concerns Advice Line): 512-232-5050. Your call can be anonymous. If something doesn't feel right – it probably isn't. Trust your instincts and share your concerns. This service is provided through a partnership among the Office of the Dean of Students, the Counseling and Mental Health Center (CMHC), the Employee Assistance Program (EAP), and The University of Texas Police Department (UTPD). Visit <http://www.utexas.edu/safety/bcal>.

Emergency Evacuation Policy

The following recommendations regarding emergency evacuation from the Office of Campus Safety and Security, 512-471-5767, <http://www.utexas.edu/safety/>

Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.

- Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.
- Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.
- In the event of an evacuation, follow the instruction of faculty or class instructors. Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.
- Link to information regarding emergency evacuation routes and emergency procedures can be found at: www.utexas.edu/emergency

Section 51.911 of the Texas Education Code states that a student shall be excused from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. University policy requires students to notify each of their instructors at least fourteen days prior to the date they will be absent from scheduled classes to observe a religious holy day.

(from http://www.utexas.edu/provost/policies/religious_holidays/1555_001.pdf)