

Electroacoustic Music II

MUS 333 01

4 credits

Tuesday & Thursday 9:00 – 10:45 AM

Location: Benildus 245 - Computer Lab

Instructor: Steven M. Miller

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Syllabus

Overview

A continuation of MUS 332, this course will simultaneously focus on the aesthetic and musical considerations of electroacoustic media as well as on developing the requisite theoretical knowledge and practical technical facility with the tools and resources of electroacoustic music. This dual focus will provide an appropriate historical, aesthetic, and technical basis to support further exploration into composition and performance with electro-acoustic media.

This semester the focus is on programming for musical uses in the Max/MSP programming environment. Building on skills and knowledge gained with the analog modular system and multi-track studio techniques, we will migrate the activity to within a computer software & hardware system. Max/MSP is particularly suited to creating interactive programs and virtual instruments for live performance. Continuing the ideas of patch cord signal flow and modules optimized for specific tasks, we will broaden the resources to include MIDI control and real-time digital audio.

The primary activity this semester will be projects and the requisite reading/discussion needed for understanding related audio, synthesis, DSP, and programming concepts and techniques.

Required Texts

Todd Winkler, *Composing Interactive Music*, MIT Press 1998

Joel Chadabe, *Electric Sound; The Past and Promise of Electronic Music*, Prentice Hall 1997

Other readings on reserve or online, as assigned.

Assignments & Projects

In addition to the readings and in-class discussion each student will do 3 short (15-20 minutes) in-class presentations, and 5 projects, including midterm and final projects.

Project 1 – ‘Analog Style’ MIDI Sequencer

Project 2 – Auto-Filter or Wah-Wah effect

Project 3 (Midterm) – Reverberator or Pitch Shifter

Project 4 – FM, Waveshaping, or Granular Synthesis Instrument

Project 5 (Final) – Interactive Performance Instrument

Presentations - Give an introductory summary on the readings, ideas, issues, etc. for a specific week's topic. You will provide the class with a written outline of your presentation and 2 discussion questions.

Midterm Project – Reverberator or Pitch Shifter. Will consist of an extensive original patch developed into a processor with MIDI control input & real-time audio input/output. Student will turn in: working MaxMSP patch; printed instruction sheet on how to operate the patch; a short (1-2 minute) audio recording of the use of the patch. All these components will be submitted on a CD-ROM: 1 MaxMSP patch, 1 text file, and 1 AIFF file.

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Final Project – Interactive Synthesis/DSP Instrument. Will consist of an extensive original patch developed into a live performance instrument with MIDI control input & real-time synthesis/dsp output. Student will turn in: working MaxMSP patch; 5 page paper describing the software and the compositional and/or performance uses of it the student envisions; printed instruction sheet on how to operate the patch; a short (1-2 minute) audio recording of the use of the patch. All these components will be submitted on a CD-ROM: 1 MaxMSP patch, 2 text files, and 1 AIFF file.

Grading

All students will be responsible for completing assigned readings and projects and fully participating in all class discussions. While acknowledging and allowing for special circumstances, students are expected to complete assignments in a timely manner. All assignments will be typed/printed. Assignments are due at the beginning of the class period on the due date. Late assignments will receive half-credit.

Presentation 1	5%
Presentation 2	5%
Presentation 3	5%
Project 1	10%
Project 2	10%
Midterm Project	20%
Project 4	15%
Final Project	30%
Semester Grade	100%

Americans With Disabilities Act

The College of Santa Fe makes every effort to provide appropriate accommodations for students with documented disabilities in compliance with the Americans With Disabilities Act. Students may receive the accommodations if they contact their professor and register at the Center for Academic Excellence with the Disabilities Service Coordinator.

Note: All reasonable attempts will be made to adhere to the schedule & information in this syllabus. However, the instructor reserves the right to make accommodations & adaptations based on class progress, special opportunities, as well as occurrences outside the instructor's control.