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# MUS 271.01: Sequencing, synthesis, and Notation

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# MUS 271: Sequencing, Synthesis, and Notation Fall 2005

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#### Schedule:

Classes meet Mondays and Wednesdays from 1:10-2:00 pm in the Lab, room 202.

Lab time will be available Mondays-Thursdays from 6:00-10:00 pm, and Sundays from 1:00-5:00 pm, for weeks 2-14, in the Lab.

The Final Exam is scheduled for Tuesday, December 13 at 1:10-3:10 pm, in the Lab.

#### Description:

MUS 271 is an intermediate course in computer music composition, a project-based class that covers the theory and application of digital synthesis, sampling, and signal processing, MIDI sequencing, and music engraving, using Absynth, Kontakt, Digital Performer, and Sibelius software.

The process of sound design and computer music composition will be discussed, software will be demonstrated, and recordings of representative pieces will be presented for study, in class. Students are expected to discuss the current topic, practice using the software, and take notes on their observations, during class.

Each student will complete four Assignments for the class. Each Assignment is meant to promote an understanding of the computer music techniques studied, as well as the software demonstrated in class, through creative experimentation.

The Final Exam will be a written essay test, covering topics presented in lectures and readings, and will include identification of software tools.

Chapters of the required text, *Computer Music: Synthesis, Composition, and Performance* by Charles Dodge and Thomas A. Jerse, will be assigned throughout the semester, to aid understanding of the current topic of the class.

#### Materials:

The textbook for the class, Charles Dodge and Thomas A. Jerse's *Computer Music: Synthesis, Composition, and Performance*, can be purchased from the University of Montana Bookstore.

Each student will need CD-R(W) media, for handing in assignments and backing up files. Each student should regularly backup their work from the hard disks on the computers in the Lab and Studio. CD-R(W) media can be purchased from the Bookstore.

### **Grades:**

Each Assignment will count as 20% of the grade, and will be graded on creative effort and technical understanding. The Final Exam will count as 20% of the total grade.

Attendance is mandatory, and excessive absences will be reflected in your final grade. In addition, each student will be required to attend the Mountain Computer Music Festival concert on September 16<sup>th</sup> at 7:30 pm, and the Society of Composers Inc. Region VIII Conference concerts October 27<sup>th</sup>, 28<sup>th</sup>, and 29<sup>th</sup> at 7:30 pm, and October 29<sup>th</sup> at 2:00 pm.

## Calendar:

Week 1	Absynth: interface, oscillators, waveform editing
Week 2	Absynth: filters, modulation, waveshaping, effects
Week 3	Absynth: envelopes, low frequency oscillators, MIDI
Week 4	Assignment 1 presentations
Week 5	Kontakt: interface, sample mapping, looping
Week 6	Kontakt: modulation, filters, effects
Week 7	Kontakt: tone machine and time machine
Week 8	Assignment 2 presentations
Week 9	Digital Performer: interface, recording, playback
Week 10	Digital Performer: editing, processing
Week 11	Digital Performer: mixing, spatialization
Week 12	Assignment 3 presentations
Week 13	Sibelius: interface, note input, playback
Week 14	Sibelius: articulations, slurs, dynamics, text, formatting
Week 15	Final Exam