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## MUS 170.01: Introduction to Music Technology - Digital Audio and Multitracking

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## MUS 170: Introduction to Music Technology: Digital Audio and Multitracking Fall 2005

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### Schedule:

Classes meet Mondays and Wednesdays from 2:10-3:00 pm for Section 1, and Tuesdays and Thursdays from 11:10 am - 12:00 pm for Section 2, 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 Exams are scheduled for Monday, December 12 at 1:10-3:10 pm for Section 1, and Monday, December 12 at 10:10 am-12:10 pm for Section 2, in the Lab.

### **Description:**

MUS 170 is an introductory course in computer music composition, a project-based class that covers the theory and application of digital audio recording, processing, multitracking, mixing, and spatialization, using Peak and Digital Performer software.

The process of composing with recorded sound 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. Students are also required to read about the composers presented in class, and listen to the recordings posted on line, outside of class.

Each student will produce Midterm Project and Final Project pieces, meant to promote an understanding of the computer music techniques studied, as well as the software demonstrated in class, through creative experimentation. Students will also take two Quizes about the life and music of the composers studied, in order to foster a deeper understanding of the computer music history covered in class.

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

### Materials:

The reading assignments can be accessed online. Supplemental reading, including the book, *Electronic and Computer Music*, by Peter Manning, will be held on reserve in the library.

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 Workstation. CD-R(W) media can be purchased from the Bookstore.

### Grades:

The Midterm Project and Final Project will each count as 30% of the final grade, and will be graded on creative effort and demonstrated technical understanding. The Quizes will each count as 10% of the grade, and the Final Exam will count as 20% of your final 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	Introduction Peak: soundfiles, windows, controls, recording
Week 2	Pierre Schaeffer Peak: digital audio editing
Week 3	Pierre Schaeffer Peak: digital signal processing
Week 4	Karlheinz Stockhausen Peak: plug-ins
Week 5	Karlheinz Stockhausen Peak: mixing, playlists
Week 6	Lab time
Week 7	Midterm Project presentations
Week 8	Luciano Berio Digital Performer: projects, windows, controls, importing
Week 9	John Cage Digital Performer: editing
Week 10	Edgard Varèse Digital Performer: plug-ins
Week 11	Luigi Nono Digital Performer: mixing, spatialization
Week 12	François Bayle Digital Performer: automation
Week 13	Lab time
Week 14	Final Project presentations
Week 15	Final Exam