

025:251 COMPOSITION: ELECTRONIC MEDIA II

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Course Description: Students will build upon techniques and ideas explored in Electronic Media I, with a new emphasis on developing interactive and interdisciplinary approaches to composition. Students will be encouraged to compose for any combination of instruments, tape, and live computer interaction using such software as ProTools, Cecilia, Kyma, SuperCollider, and Max/MSP. Uses of the computer as a compositional tool with Kyma, Max/MSP, and Mathematica will also be explored. Since multimedia works are becoming an increasingly important aspect of composition, several approaches to combining images and sound will be explored in ProTools and After Effects. Other topics will include the history of electronic music, current aesthetic trends, and professional aspects of the field.

Grading: Grades are based on participation (10%), composition/research presentations (20%), and the final composition (70%).

Final Project: The final project will consist of one more works utilizing any combination of instruments, tape, and live computer interaction. Students will present working versions of the piece during class throughout the semester.

Studio Access: Students will be assigned keys to Studios 1, 2, and 3. Schedules are posted outside each studio door.

Studio Maintenance: The studios should be kept clean at all times. Food and open drinks should not be consumed in the studios. Bottled drinks should be carefully handled.

Studio Problems: Please report any problems to John and Mike as soon as they occur.

Studio Disk Storage: Students may keep copies of their work on any EMS User drive. However, this data will not be protected and could be accidentally erased or altered. Students should back up all of their work on removeable media, discussed below.

Materials: Students will receive free CDs containing pre-recorded sounds and online manuals. Students should purchase their own blank media for backup: Zip disks, 100 MB at \$8 each; CDs, 650 MB at \$1 each, and DVD Ram disks, 4.9 GB at \$30 each.

Readings:

Curtis Roads, Computer Music Tutorial, (permanent reserve)
ProTools Online Manual (pdf)
Kyma Online Manual (pdf)
Max Online Manual (pdf)

Calendar

- Jan. 17 Composing for instruments and tape. Writing program notes and bios.
- Jan. 22 Composing for instruments and tape. Building sound objects. CyberSynth, MIDI in Protools.
- Jan. 24 Composing for instruments and tape. Building sound objects. MIDI in Protools.
- Jan. 29 Composing for instruments and tape. Critique of sound objects. Converting audio to MIDI in Studio Vision.
- Jan. 31 Composing for instruments and tape. Critique of sound objects. Exporting MIDI to Finale.
- Feb. 4 **Flute and Computer Concert**
- Feb. 5 Live interaction in Kyma. Triggering sound objects. Writing a resume.
- Feb. 7 Live interaction in Kyma. Triggering sound objects. Writing grant proposals.
- Feb. 12 Live interaction in Kyma. Processing live input. Performance opportunities.
- Feb. 14 Live interaction in Kyma. Processing live input. Professional opportunities.
- Feb. 16 **Concert of Student Works**
- Feb. 19 Project Critique
- Feb. 21 Project Critique
- Feb. 26 Intro to Max/MSP.
- Feb. 28 MIDI processing in Max.
- Mar. 5 MIDI processing in Max.
- Mar. 7 Algorithmic MIDI generation in Max.
- Mar. 12 Spring Break
- Mar. 14 Spring Break
- Mar. 19 Triggering MIDI objects in Max/MSP.
- Mar. 21 Triggering sound objects in Max/MSP.
- Mar. 26 Project Critique
- Mar. 28 Project Critique
- Apr. 2 James Dashow, guest composer.
- Apr. 4 Mathematics as a composition tool.
- Apr. 9 Generating permutations in Mathematica.
- Apr. 11 Generating curvilinear functions in Mathematica.
- Apr. 12 **International Student Exchange Concert**
- Apr. 16 Project Critique
- Apr. 18 Project Critique
- Apr. 23 Synthesis with SuperCollider. History of Electronic Music.
- Apr. 25 Synthesis with SuperCollider. History of Electronic Music.
- Apr. 30 Multimedia composition with After Effects. History of Electronic Music.
- May 2 Multimedia composition with After Effects. History of Electronic Music.
- May 7 **Final Project Due**