

Syllabus
Music and Technology
Music 9
Dartmouth College
Spring 2013
2A (Tuesday, Thursday, 2-3:50)
x-hour, 4:15–5:20 (place, TBA)

update 5/7/13

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TA: Ryan Maguire, M.A student, Digital Musics program

Introduction to the Class

This class will focus on a hands-on approach to creating ideas using sophisticated, flexible, non-commercial computer music software (mostly PD). We will explore ideas of music computing and digital sound, as well as selectively survey some of the history of experimentation in electronic and computer music.

The course will be project-based: students will do a number of projects using the software, culminating in a final creative or research project. All projects will be looked and listened to in-class. We will also have a number of guests, talking about their own work. Other topics in electronic music, composition, software and theory will be announced (with their associated readings and Listening) as the term progresses.

Student Requirements

- 1) Attendance, readings, Listening.
- 2) A number of PD projects.
- 3) X-hours will be used as lab sessions, to help students with PD projects.
- 4) Final project, chosen in consultation with the instructor.
- 5) Pop quizzes on the class material, readings, Listening, and guest presentations

Required Texts

All material for this class is online, free. Go to class website for links.

Software:

PD

Audacity (public domain sound editor, you may use any one you like)

Manuals

Puckett, *PD Manual*

Farnell, *Designing Sound* (excerpt, excellent introduction to PD)

Puckett, *The Theory and Technique of Electronic Music*

Book (on web)

Repetto, Rockmore, Polansky, Roberts: *Music and Computers*

Projects: The three projects (and final project) are to be done the form of PD patches. These need to be uploaded to the class email (dartmouthmus09@gmail.com), with your name and project number, e.g james.lebron.project1 by 8:00 a.m the day they are due. Anything not arriving, or not working (uploaded in some unreadable format, etc.) will be counted as not being done.

Classroom policy: No computers, iPads, iPhones, etc in the class except for whoever is teaching. Please use paper and pen/pencil for notes.

Class Schedule

(all topics, dates subject to change as the class develops)

WEEK 1 March 26, 28

Tuesday: Introduction to the class.

What is sound? How is sound represented digitally? What is computer music software? A brief introduction to some of the history of computers/electronics and sound.

Pitch and loudness.

Introduction to PD: basic structures, simple examples

PD project 1 given (sound environment).

Thursday: Lots more on PD (data control, canvasses, messages)

More on the basics of sound (timbre, mixing, control)

Readings:

- *Music and Computers*, Chapter 1,2
- Farnell, Chapter 1–3; Puckett (*PD Manual*), 1–3. This is the basic reference material for PD and for your projects, you will be responsible for knowing this material as well as using it in your work.
- Lucier, *Chambers* (chapter on *I am Sitting in a Room*, on reserve in Paddock for Music 16)

Listening: Alvin Lucier, *I Am Sitting in a Room* (on web, but better audio quality available on reserve in Paddock Music Library)

WEEK 2 April 2, 4

Tuesday: More on PD. Tools for designing sound environment, musical (time) structures: time variant controls, filters, passing of more complex messages. More on LINE (inlets/outlets), LOADBANG, PACK, and other useful tools.

Some early pieces in American electronic music, process pieces and use of found sounds: Williams Mix, *For Ann Rising* (as time allows in next few classes)

Thursday: Tom Erbe, guest instructor

Readings: Cage, about *Williams Mix* (in Jaime Pritchett, *The Music of John Cage*; in the liner notes to the original LP recording, containing the score; and in correspondence with Pierre Boulez, all on reserve in Paddock, Pritchett and Boulez on web as well), Farnell, Chapters 4-5.

WEEK 3: April 9, 11

Tuesday: PD project 1 due (sound environment). Listening and viewing in class. PD project 2 given (advanced environment, using abstraction, melodic intelligence, instrument design).

Thursday: More on PD: audio (steady-state modulation, melodic algorithms), electronic music.

Readings: Music and Computers, Chapter 3,4; Farnell, Chapters 5-7, Reich, *Writings about Music* (“Introduction,” “Music as a Gradual Process,” “Slow Motion Sound,” “Notes on Compositions.”) (Reich book on reserve in Paddock).

Listening: Reich, Come Out

WEEK 4: April 16, 18

Tuesday: Guest, Tara Rodgers.

Thursday: Guest, Philip Hermans, game and strategy music.

Readings

WEEK 5: April 23, 25

Tuesday: Ryan giving class, introducing soundfile reading and writing.

Thursday: PD project 2 due. (in class Listening/viewings). Project 3 given (using samples)

WEEK 6: April 30, May 2

Tuesday: Live electronic and computer music: history and ideas. Guest, Tara Rodgers.

Thursday: More on live electronic and computer music: history and ideas. Guests, Beau Sievers, Mike Winter.

Readings: (re: Tara Rodgers visit):

Greene, Paul D. "Introduction: Wired Sound and Sonic Cultures," in *Wired for Sound*, edited by Paul D. Greene and Thomas Porcello (Middletown, CT: Wesleyan UP, 2005), pp. 1-14 only.

Rodgers, Tara. *Introduction to Pink Noises: Women on Electronic Music and Sound* (Duke University Press, 2010), pp. 1-19.

Listening: TBA

WEEK 7: May 7, 9

Tuesday: More listening to project 2s. Some examples of pieces using soundfiles/

Thursday: PD project 3 due (in class Listening/viewings). Final project given

WEEK 8: May 14, 16

Tuesday: More listenings to project 3.

Thursday: Neil Rolnick, guest in class

WEEK 9: May 21, 23

Tuesday: Final projects due. In class performances.

Thursday: Final projects: in class performances.

WEEK 10: May 28

Tuesday: Final projects: in class performances.