



INTRODUCTION TO COMPUTER MUSIC

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INTRODUCTION

What's In This Introduction?

- What is this course about?
 - Computer Music Technology
 - Making Music With Computers
- How is the course taught?

What Is This Course About?

- Computer Music Technology
 - Theory
 - Digital audio, Digital signal processing
 - Software design, languages
 - Data structures and Representation
 - Practice
 - Nyquist: a composition and sound synthesis language
 - Audacity: a digital audio editor

What Is This Course About? (2)

- Making Music With Computers
 - Theory: listening and discussion
 - Practice: composition assignments

Projects

- Schedule is on the web
- All labs are due 11:59pm on the shown due date
- You have 3 grace days for the entire semester (P1 through P6 only) - use them wisely.
- You can use at most 1 grace day for any one assignment

How To Get Help

- Read the textbooks:
 - Curtis Roads, *The Computer Music Tutorial*
- Read the Nyquist manual
 - (esp. use the index)
- **Prof. Dannenberg's** office hours:
 - Tue/Thur noon – 1:30pm
 - By appointment:
rbd at cs.cmu.edu, 268-3827
 - GHC 7003
- **Teaching Assistants**
- Hours and Location online at www.cs.cmu.edu/~music/icm

Communication

- Web Site – www.cs.cmu.edu/~music/icm
- Slides will be posted on Web Site
- Syllabus is on Web Site
- Project info too
- Come to class (!)
- Discussion/Newsgroup/Bboard for class: we will pick either
 - <https://piazza.com/class/spring2015/15322>
- Projects handed in to
`/afs/cs.cmu.edu/academic/class/15322-s11/usr/USER-ID/pnn`
- See instructions in syllabus.

Computing Hardware

- You must have access to a machine for homework and projects (there is no class studio, lab, or cluster):
 - Mac, Windows, or Linux is OK
 - No machine is too slow
 - 5MB/minute/channel of audio
 - Projects will be submitted via network to AFS (if you have network problems, you can bring a CD-R or flash drive to campus and copy to AFS)

Software

- Nyquist is a *self-contained* language for sound synthesis and composition.
- Audacity is an audio editor.
- Both are open source and free.
- You may use other languages, editors, and tools
 - ... *in addition to* but not usually *instead of* Nyquist,
 - Project descriptions will generally ask for certain things to be done in Nyquist

Welcome to the Course



- Now is a good time to download Nyquist
 - <http://www.cs.cmu.edu/~music/nyquist/>
- and Audacity
 - <http://audacity.sourceforge.net/download/>
- Install them and get ready to make some music!