
Computer and Electronic Music through Programming, Performance, and Composition

MUS/COS314 (QR): Princeton University Spring 2012

Lecture: Tuesdays 1:30-2:50, Woolworth 106

Rehearsal (with MUS316, as the Princeton Laptop Orchestra): Thursdays 1:30-4:20

PEOPLE

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DESCRIPTION/OBJECTIVES

We explore the fundamentals of computer and electronic music in the context of the Princeton Laptop Orchestra (PLOrk). The music and sound programming language ChuckK, developed here at Princeton, will be used in conjunction with a variety of other tools to study procedural programming, digital signal processing and synthesis, networking, and interactive human-computer systems.

We will have one weekly joint meeting with MUS316 as PLOrk, and one weekly lecture. The joint meetings will provide opportunities to try out work with the full ensemble and also to learn from your peers and composers developing new pieces for PLOrk; performances and rehearsals are required, and you will get many points off and much unhappiness from your instructors if you skip them.

IMPORTANT DATES

March 27: (evening) Midterm performance

April 6: (evening) Dress rehearsal

April 7: (all day) Rehearsal, then performance in Richardson

May ????: Final “House of Sound” showcase of final projects (Date TBA)

Please notify your instructors **this week** if you anticipate any conflicts with these dates.

COURSE WIKI

The wiki is your best resource for the class. All assignments will be posted there. We’ll also be posting examples discussed in precept, schedules, and lots of other important information, so bookmark and visit often:

http://wiki.cs.princeton.edu/index.php/PLOrk_spring2012

PIAZZA

Please use Piazza for any questions and discussion regarding the lectures, assignments, projects, etc:

<http://piazza.com/class#spring2012/mus314cos314>

GROUP WORK

Your midterm, many of your assignments, and possibly your final project will be done in groups of two or three. Please find a lab partner by the second week of class.

ASSIGNMENTS AND LATE POLICY

Weekly-ish assignments will focus on programming (mostly in ChuckK) and short written work. All assignments will be posted on the Wiki and submitted using Blackboard. (We'll send out instructions.) **You'll be graded on correctness, coding style, and creativity.**

There will also be a mid-term project (due after mid-term break, with a performance on March 27) and a final project.

Most of the assignments will provide links to online readings. Other good resources for you to use are listed on the course wiki.

Unless noted otherwise, you'll be turning in your assignments and receiving your grades and feedback through Blackboard. Weekly assignments will lose 10% of the grade for each day they are turned in late (the day ends at 11:59pm).

The midterm and final projects must be turned in on time—no late projects accepted.

PLOrk-stations, PLOrk-tops and SOFTWARE

You will be in charge of managing your own laptop environment throughout the semester. Loaner PLOrk-tops will be checked out to those who need one. Please see the PLOrk repository instructions at this site to configure your working environment:

http://wiki.cs.princeton.edu/index.php/PLOrk_Rep

On most weeks, you will also receive an email requesting that you update software on your own computer.

Every student may also check out a PLOrk-station hemisphere and subwoofer. You are in charge of bringing your station and laptop to rehearsal every Thursday, and having it unpacked and ready to play at 1:30PM. If you choose to store your hemisphere and subwoofer in Woolworth, you will need to make sure you come early enough to get it out of storage; some PLOrk staff will be available starting at 1:00 to facilitate this.

We have additional equipment (Wii-motes, game controllers and sensors, etc.) that you can use in Studio B. The PLOrk staff members will sign extra equipment out to you on an as-needed basis throughout the semester. (Do not take other equipment home without signing it out first.)

PREREQUISITES and RESTRICTIONS

Admission is by application only; contact Greg Smith in the Music Department office for an application. No programming background is expected, though musical experience (of any kind) is required. 314 serves as a prerequisite for MUS316.

REQUIREMENTS and GRADING

- Weekly Assignments: 40%
- Class/PLOrk Participation: 10%
- Midterm project 20%
- Final project 30%

If you are a COS student taking 314 as a departmental, your final project must include a significant programming component.

Your participation grade is based on you contributing your fair share to the wellbeing of PLOrk. This includes showing up, contributing to group discussion in class and on Piazza, refraining from cell phone and Web while in class and rehearsal, helping with equipment setup and teardown, etc.

Additionally, because we all rely on each other in rehearsals and performances, you will lose half a letter grade (e.g., A becomes A-, A- becomes B+) for every rehearsal that you miss without an approved excuse. If you anticipate needing to miss a rehearsal, please contact us no later than one week in advance to obtain approval. If you are sick, please get a doctor's note.

COLLABORATION AND ACADEMIC INTEGRITY

You are free to discuss your assignments with your peers, but all code written must be your own. You may not borrow or re-use code from other sources in your homework. While ChuckK mailing lists and forums are a good place to go for general insight, the 314 staff also use these resources and we will find out if you go to them asking for homework solutions, so don't do it!

In your midterm and final projects, you may find that you want to use code from other sources (e.g., code you find online, third-party libraries, code you wrote in another class). This is fine as long as you tell us in writing (e.g., in a README file submitted with your project) what code is not yours and where you got it, and you also clearly indicate in your

code itself (using comments) which code is not your own original work. This will enable us to grade you on the basis of your original contributions, and it will enable you to abide by the guidelines of Princeton's policies on academic integrity.

FINAL REMARKS

We expect – nay, hope! – that PLOrk will present you with a set of experiences and challenges like no other. Those of you with no programming background should expect to spend extra time learning ChucK and practicing coding. If you find you are struggling, e-mail us, post to Piazza, come to our office hours (announced 2nd week of the semester), or set up another time to meet for some help.