Syllabus
Computational Musicology and the Digital Humanities (MUS7921)

Instructor: Dr. Daniel T. Shanahan
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Office Hours: Tuesday and Thursday, 11am-12pm, and by appointment.
Course: MUS3731/3733
Term: Spring, 2015
Time: MWF, 8:30-9:20
Location: MDA273
Course Website: http://shanahdt.github.io/mus7921
Required Items: Access to a computer with a Unix-style terminal (Mac, Linux, or a Windows computer running CygWin). You are able to access the technology lab in SOM, if need be.

Course Objectives:

This course is intended to provide the student with the ability to engage with music research from an empirical and computational viewpoint. Students will be exposed to symbolic notation systems that allow for searching, computational analysis, and computational modeling. Additionally, this class will teach students how to engage with recorded music and web APIs. This course will cover the basics of Unix (Bash) scripting, Humdrum, R, and Sonic Visualizer, as well as the general concepts and history of computational research.

Required Materials

There is no required text for this class, as most of what we will be working with is available as an electronic resource from the LSU library or online. PDFs for other sources will be made available on Moodle.

It will be necessary to download certain toolkits when necessary, such as Humdrum and RStudio.

Required Classroom Etiquette

1. **Attendance is expected at each class meeting**, since the instructor's demonstration of practice techniques and study methods will benefit the students greatly. Attendance will be taken at each class meeting.
2. Excused absence constitutes absence excused by the University (e.g., performance, etc.) or a note provided from the University Health Center.
3. It is the student's responsibility to arrange a make-up time/day with the instructor within ONE WEEK from the date of the excused absence. Failure to do so will result in a zero (0) for the missed assignment.
4. Tardiness will not be tolerated and may result at the least in the student's ejection from the class. Disruptive or disrespectful behavior will result in ejection from the classroom and report to the Dean of Students.
5. All written work is due at the *beginning* of class on the designated date.

6. Students are expected to complete all the assignments. The instructor reserves the right to collect or "spot" check HW or classwork (e.g., HW, in-class work, etc.) at any time. Incomplete or missing work will result in a "0."
7. Cellphones are not permitted.

Assignments

1. The student is responsible for all the assignments that are distributed in class/posted on the course website (Moodle).

Examinations

1. Written:
   a. Seven quizzes total (one after each unit).
   b. Final exam
2. Performance (in Labs)
   a. Five recitations (see rubric below)
   b. There will be no labs on the scheduled day of recitation.
   c. It is your responsibility to sign up for a slot on a first-come, first-served basis.
   d. See recitation dates in the tentative schedule below.
3. Other lab examinations
   a. One midterm (dictation and singing)
   b. One lab final (dictation and singing)

Grading Scale:

97–100	A+
93–96	A
90–92	A-
87–89	B+
83–86	B
80–82	B-
77–79	C+
73–76	C
70–72	C-
67–69	D+
63–66	D
60–62	D-
<60	F

Overall Evaluation

Homework	25%
Attendance and In-class participation (see rubric below)	20%
Midterm Project	20%
Final Presentation	10%
Final Project	25%

Attendance and Participation Rubric:

Attendance	Present (2)	Late (1)	Unexcused Absence (0)
Participation	Contributes to Discussion (2)	Inattentive, unprepared, or non-responsive (1)	A distraction to others (0)

Late Assignments

I will accept late assignments for **one week after the due date**. Late assignments will be deducted 5 points per class. For example, an assignment due on Monday that earns a 94 will be awarded an 89 if handed in before Wednesday, an 84 if handed in before Friday, etc. **ASSIGNMENTS WILL NOT BE ACCEPTED AT ALL AFTER ONE WEEK**.

Attendance and Tardiness

Attendance is required, and is an extremely large part of your grade. Attendance will be taken at the beginning of each class. If you are unable to sign in (e.g. if you arrive to class after the attendance sheet has been collected), it will be treated the same as an absence.

I will drop the two lowest attendance grades, and no grade will be given at all (no addition or deduction) for excused absences.

For further information, see the LSU's university-wide attendance policy (PS-22).

Schedule (Tentative and Subject to Change)

Week	Reading Topic	Skills	Important Dates
1 (1/11)	**Topic 1: Symbolic Notation** Introduction	Basic Unix commands, installing toolkits, working with git.	
2 (1/18)	Early approaches to computational musicology	Kern notation and basic searching, writing a shell script	No Class on Monday (Martin Luther King Day)
3 (1/25)	What is empirical musicology? Generating hypotheses.	Regular expressions, the pipe, and extended searching, mint, hint	
4 (2/1)	Building a corpus	The basics of awk and sed, deg, solfa	
5 (2/8)	Information Theory and Music	More on awk and sed, infot, pc, midi, and freq,	No class on Monday or Wednesday (Mardi Gras)
6 (2/15)	Transition Probabilities	Assemble, tmp files	
7 (2/22)	**Topic 2: Statistical Programming** Linear regression and corpus studies	Working with R	
8 (2/29)	Multiple regression and corpus studies	R, continued	
9 (3/7)	Key-finding algorithms	Graphing with R	**Midterm Week (Midterm Project due on Friday, 3/11)**
10 (3/14)	**Topic 3:** Performance Analysis (the Mazurka Project)	Introduction to Sonic Visualizer	
11 (3/21)	_____	_____	Spring Break
12 (3/28)	Cook, Sapp, and Similarity analysis	More with Sonic Visualizer	
13 (4/4)	CHARM performance analysis papers	More with Sonic Visualizer	
14 (4/11)	Topic 4: Working with the Web	Web APIs	
15 (4/18)	The Perils of Big Data	Shell, R, and web APIs	
16 (4/25)	Presentations	Presentations	**Final Project due May 2nd at 5pm.**

Academic Integrity

Louisiana State University adopted the Commitment to Community in 1995 to set forth guidelines for student behavior both inside and outside of the classroom. The Commitment to Community charges students to maintain high standards of academic and personal integrity. All students are expected to read and be familiar with the LSU Code of Student Conduct and Commitment to Community, found online at www.lsu.edu/saa. It is your responsibility as a student at LSU to know and understand the academic standards for our community.

Students who are suspected of violating the Code of Conduct will be referred to the office of Student Advocacy & Accountability. For undergraduate students, a first academic violation could result in a zero grade on the assignment or failing the class and disciplinary probation until graduation. For a second academic violation, the result could be suspension from LSU. For graduate students, suspension is the appropriate outcome for the first offense.

Assistance

I am available and interested in talking with you about the course, the course material, and strategies to enhance your learning. We can usually have brief discussions after class, and I am able to answer questions by e-mail (dshanahan@lsu.edu) at any time. Please feel free to visit me during office hours (see above) at any point during the semester. Additionally, I am happy to set up an appointment at a time that is mutually acceptable for more lengthy discussions.

Food and Drink

Please refrain from having any food or drink in the classrooms.