MUSI 7100: Syllabus

Music Technology Research Lab

Spring 2016

Course Details

class time	by appointment
location	Couch 205
credits	3 credit hours

Instructor Information

name	Alexander Lerch
email	`alexander.lerch@gatech.edu`
location	Couch 205
office hours	M 4:30–5:30pm and by appointment

1 General Information

1.1 Course Description

Guided research and creative work in music technology. Investigation of novel technological and artistic concepts. Design and develop new hardware, software, and musical artifacts.

2 Prerequisites

Prior coursework in signals and systems is expected. Programming experience and familiarity with Matlab will be helpful.

3 Learning Outcomes

After successful completion of the class, the students will demonstrate

- knowledge of state of the art algorithms in music technology,

- the ability to design and implement algorithms for the analysis and synthesis of audio and music,

- the ability to approach a research project by formulating the research question, doing a literature survey, designing the experiment, evaluating and analyzing the results systematically, and presenting the results in a presentation and a scientific paper.

4 Grading

The overall grade consists of:

attendance	10%
project work	50%
paper	20%
final (poster) presentation	20%

4.1 Description of Graded Components

The paper will be a conference style paper describing the project in a scientic style in a quality that would allow conference submission.
At the end of the term, there will be a poster presentation and demo session which is mandatory for all students.

4.2 Grading and Grading Policies

All grading components such as assignments, papers, presentations, projects, quizzes, and exams will be graded in points. The final grade for the course will be determined by dividing the total points earned by the number of points possible for each of the categories listed above.
These numbers will be converted into a grade according to the following scale:

A	100–90%
B	89–80%
C	79–70%
D	69–60%
F	59% and below

Grades may be assigned per group or individually as announced (e.g., projects are in most cases per group, quizzes are usually per individual).

5 Course Materials

5.1 Software

The assignments and project work will be done in Matlab. Note the following license information:

```
www.matlab.gatech.edu
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Other tools and programming languages can be used if approved by the instructor.

6 Method of Evaluation

The overall grade consists of:

- **10%**

- **50%**

- **20%**

- **20%**

6.1 Grading and Grading Policies

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7 Course Expectations & Guidelines

7.1 Course Schedule

The class will consist of individual meetings and weekly group meetings.

Since all classes do not progress at the same rate, it may be necessary to modify the above schedule as circumstances dictate. For example, the number and frequency of assignments may be altered or the schedule of the classes may be changed. In either of these cases, adequate notification will be given and be discussed in class.

7.2 Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. For information on Georgia Tech's Academic Honor Code, please visit:

- http://www.catalog.gatech.edu/rules/18b.php

- http://www.catalog.gatech.edu/genregulations/honorcode.php.

Students are encouraged to support each other, but each artifact has to be clearly executed by the individual/group being graded. Any student suspected of cheating or plagiarizing on a quiz, exam, assignment, or other artifact will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

7.3 Accommodations for Individuals with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services (often referred to as ADAPTS) at (404)89-2563 or

- http://disabilityservices.gatech.edu

as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

7.4 Attendance and Participation

Regular attendance is expected. Missed classes might impact your learning experience and have negative influence on the participatory grade.

7.5 Extensions, Late Assignments, Missed Exams

All assignments, papers, and other artifacts are due **ON THE DUE DATE**. The due date will be announced per assignment on t-square. A penalty of **TEN POINTS PER DAY** will be applied to all late assignments and late project papers. Documented illnesses and family emergencies are excepted. Quizzes and exams cannot be made up unless you have a valid, documented excuse.

7.6 Student Use of Mobile Devices in the Classroom

The use of mobile devices in the classroom is not allowed unless explicitly allowed by the instructor.

7.7 Student-Faculty Expectations

At Georgia Tech we believe that it is important to continually strive for an atmosphere of mutual respect, acknowledgment, and responsibility between faculty members and the student body. See

- `http://www.catalog.gatech.edu/rules/22.php`

for an articulation of some basic expectations — that you can have of me, and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.