

Syllabus

Music Technology Independent Research Courses Fall Semester 2026

Jeffrey Albert, Ph.D.

April 2, 2026

- **Courses**

- MUSI 4699 — Undergraduate research
- MUSI 4705 — Undergraduate Capstone
- MUSI 7100 — Graduate research
- MUSI 7000 — Masters thesis
- MUSI 9000 — PhD thesis

- **Instructor:**

- Jeffrey Albert, Ph.D.
- Email: jeff.albert@gatech.edu
- Office: Couch 209G
- Office hours: by appointment via <http://bit.ly/4jdDQrb>

- **Lab:**

- *Creative Music Technology lab*
 - * Location: Couch 207
- Lab communications: Email and Teams

- **Meetings:**

- Seminar: Mondays 2:00–3:00pm, West Village 175
- Lab meeting: Wednesdays 2:00–3:00pm, Couch 207
- Advisor meetings: weekly, TBA

1 Course Description

These courses provide an academic framework for independent guided research and/or creative work as a member of the *CMT lab*, within the Georgia Tech School of Music.

Working individually or in groups, you will apply your practical skills, theoretical knowledge, and critical thinking abilities to the design and development of novel research or creative projects related to music technology. Projects may focus on *research inquiry* or *creative artistry*, but ultimately any combination of science, engineering, and creative music making is appropriate. The final product(s) of your work may be scholarly papers or presentations; compositions or recordings; performances or installations; or new musical software, hardware, or musical artifacts. Your work in these courses will ultimately culminate in a completed Capstone project, Masters project, Masters thesis, or PhD thesis.

The individual-study nature of these courses will allow you, in consultation with your advisor, to define your own research directions based on your personal interests and skills.

1.1 Prerequisites

Prior experience in music composition, theory, production, and/or performance is helpful, as is experience in allied fields such as computer science, human-computer interaction, mechanical engineering, electrical engineering, industrial design, data science, psychology, and/or education.

1.2 Learning Outcomes

Through these classes, you will develop your . . .

- Knowledge of technical and aesthetic practices in music technology;
- Ability to design and implement artistic works, artifacts and interfaces, software, software frameworks, research studies, and/or educational interventions in music technology;
- Ability to approach a research project by formulating a research question, doing a literature survey, designing and realizing methodology, evaluating and analyzing the results, and presenting the results in a presentation and a scientific paper, artistic work, and/or artifact.

1.3 Course Credit

These courses can be taken multiple times for credit; Consult our Academic Advisor Erin Jackson for details.

- **BSMT**
 - MUSI 4699 — take zero or more times
 - MUSI 4705 — take one or two times
- **MSMT**
 - MUSI 7100 — four enrollments required
 - MUSI 7000 — two enrollments required for students on thesis track
- **PhDMT**
 - MUSI 7100 — four or more enrollments required
 - MUSI 9000 — one or more enrollments required

2 Course Requirements

All students must attend and participate in three weekly meetings:

- The weekly GTCMT seminar — Mondays at 2:00pm in West Village 175
- Our weekly lab meetings — Wednesday at 2:00pm in Couch 207
- Regular group or individual meetings with me, on Teams or in my office (Couch 209G)

You are also expected to present your work in lab meetings and (except for first-year MS students) in the seminar, at least once per semester.

2.1 Graduation requirements

Details concerning requirements of the Masters Project/Thesis and PhD dissertation can be found in the School of Music Graduate Handbook, here (MS) and here (PhD). Note that Masters and PhD theses have many specific requirements and deadlines set by the institution, so be sure to consult the handbook carefully (and early). Capstone and non-thesis Masters projects require fewer hurdles, and are evaluated and graded at my discretion.

2.2 Requirements each semester

Though your projects may extend through multiple semesters, there are nonetheless requirements (and associated grades) assigned each semester of enrollment.

- **Papers**
 - Mid-semester report(s) – **each semester**
 - Final paper — **each semester**
- **Presentations**
 - *MSMT students*
 - * Project/thesis proposal in GTCMT seminar — **penultimate semester of enrollment**
 - * Project conclusion in GTCMT seminar — **final semester of enrollment**
 - *PhDMT students*
 - * Research presentation — generally **every semester**
 - * Dissertation proposal and defense — **once each, when enrolled in MUSI 9000**
 - *All students*
 - * Poster/demo/performance in School of Music research showcase — see below
 - * Presentations in lab meeting, when asked.

2.2.1 Masters Project/Thesis Proposal

All MSMT students must submit a MS project proposal during their second-to-last semester in MUSI 7100. The proposal includes a written part, an oral presentation to the GTCMT seminar, and a follow-up feedback session with the School of Music advising faculty. Project-track students must submit a 3–5 page proposal; Thesis-track students must submit a 8–15 page proposal. All oral presentations are 12–15 minutes. The written proposal should be submitted to me by the end of the sixth week of classes; I will also share the proposal with other School of Music advising faculty.

Details of the proposal requirements can be found in the graduate handbook, here.

3 Research showcase

At the end of each semester, the School of Music hosts one or more research-showcase events. The goal of these showcases is to describe, explain, and motivate the work we've accomplished this semester to our peers in the School of Music—and (sometimes) to guests from the wider public.

You will present your research at one of these events and all School of Music graduate students and Capstone students must attend these events.

All first-semester MSMT students and capstone teams will be required to showcase their work. (Other students must also showcase their work *if* their advisor wants them too.) All other students are welcome to do a demo, poster, performance, or talk if they want.

The nature of your showcase participation depends on the nature of your project—consult with your advisor to decide. Generally, you may either do a demonstration, a performance, or a conference-style poster. Regardless of mode, everyone must prepare a two minute “lightning talk” about their project, to introduce their project before their demo/performance/poster session.

4 Grading

- **Attendance:** 15%
 - At GTCMT seminars, lab meetings, Guthman work/show, School of Music showcases, post-proposal feedback sessions, and scheduled individual/group meetings.
- **Presentations:** 20%
 - In GTCMT seminar, lab, and School of Music showcase demos/posters/performances.
- **Writing:** 15%
 - Including final paper, written proposals, and other assigned progress reports.
- **Project work:** 50%
 - Weekly progress and updates and final product.

5 Policy Statements

5.1 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, abide by the Georgia Tech Honor Code, and avoid any instances of academic misconduct, including but not limited to:

1. Possessing, using, or exchanging improperly acquired written or oral information in the preparation for an exam.
2. Substitution of material that is wholly or substantially identical to that created or published by another individual or individuals.
3. False claims of performance or work that has been submitted by the student.

Students are encouraged to support each other, but each artifact has to be clearly executed by the individual/group being graded. I also expect that all work submitted, whether individually or as a group, is original work. I expect that you understand how to properly cite and reference any sources you may use.

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.

5.2 Reasonable Accommodation

In accordance with the Americans with Disabilities Act, students with bona fide disabilities will be afforded reasonable accommodation. The Office of Disability Services will certify a disability and advise faculty members of reasonable accommodations.

5.3 Faculty-Student 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/> 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.

5.4 Changes to Course

Since all research and creative work progress at different rates, it may be necessary to modify the requirements laid out in this syllabus as circumstances dictate. Adequate notification will be given in writing and be discussed in class.