

# Syllabus

## GTCMT Independent Research Courses — Fall 2026

- **Courses**
  - MUSI 4705 — Undergraduate Capstone
- **Instructor:**
  - Jocelyn Kavanagh
  - Email: [jocelyn.kavanagh@gatech.edu](mailto:jocelyn.kavanagh@gatech.edu)
- **Meetings:**
  - Seminar: Mondays 2:00–2:50pm, West Village 175
  - Advisor meetings: weekly, TBA

## Course Description

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. GTCMT 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 this course will ultimately culminate in a completed Capstone project.

The individual-study nature of these courses will allow you to define your own research directions based on your personal interests and skills, subject to my guidance and oversight.

## 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.

## 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.

## 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 202
- Regular group or individual meetings with me, on Teams or in my office (Couch 209C)

You are also expected to present your work in lab meetings and in seminar, at least once per semester.

## 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**
  - Poster/demo/performance in GTCMT research showcase — see [below](#)
  - Presentations in lab meeting, when asked.

## Research showcase

At the end of each semester, the GTCMT 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.

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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 to.) 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.

## Grading

- **Attendance:** 15%
  - At GTCMT seminars, lab meetings, Guthman work/show, GTCMT showcases, post-proposal feedback sessions, and scheduled individual/group meetings.
- **Presentations:** 20%
  - In GTCMT seminar, lab, and GTCMT 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.

## Policy Statements

### 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.

## 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.

## Diversity, Equity, and Inclusion

The School of Music community of faculty, staff, and students aspires to create and nurture an environment that is supportive of all backgrounds where different views and ideas are respected and encouraged. In all our pursuits, we commit to justice, diversity, equity, and inclusion with regard to race, national origin, language, age, sexual orientation, gender, religion, and ability. Moreover, we will encourage intellectual inquiry and respectful exchange that cements our dedication to these principles.

As the instructor of this course, I endeavor to provide an inclusive learning environment. If you experience barriers to learning in this course, do not hesitate to discuss them with me, the [Office of Disability Services](#), or the School of Music administration.

## 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.

## 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.

## Student Use of Mobile Devices in the Classroom

The use of mobile devices in seminar, lab meetings, or research meetings is not allowed unless explicitly allowed by the instructor.

## Academic Grievance Policy

Students should first discuss any concerns with the relevant faculty member; if it is not possible to come to resolution with the faculty member, students may then report the matter to the appropriate administrator:

- *Director of Graduate Studies: Nat Condit-Schultz*

- *School of Music Chair:* Jeff Albert

If we can't help you, you can [report a grievance](https://provost.gatech.edu/reporting-units/conflict-resolution-ombuds/academic-grievance-policy) here. The full GT grievance policy can be found at <https://provost.gatech.edu/reporting-units/conflict-resolution-ombuds/academic-grievance-policy>.