

Syllabus: CS6460: Educational Technology: Summer & Fall 2026

This is the official syllabus for the online section of CS6460: Educational Technology, offered as CS6460-O01, CS6460-Q, CS6460-RSZ, and others. Note that there are no required readings or external materials outside of what is provided directly by the class. There is no attendance requirement.

Course Description

Introduction to educational technology, with an emphasis on theoretical foundations. Introduces basic philosophies, approaches, and technologies. Analyzes issues surrounding technology's impact on education.

This class is simultaneously an introductory course about educational technology and an advanced, project-oriented class on designing or researching technology's intersection with education. As such, the course provides information about a large number of topics within educational technology, including pedagogical strategies, research methodologies, current tools, open problems, and broader issues. The scope of the material provided goes beyond what any one person could reasonably learn in a semester. Instead, you will select those areas that appeal to you or that support your ultimate project ideas. For example, if you're interested in research, you may focus on the applicable research methodologies to your chosen area of investigation, relevant pedagogical strategies or theories, and the current state-of-the-art within that community. If you're interested in design, you may focus on the relevant pedagogical strategies or theories for your chosen domain, the current popular tools within that domain, and open problems that need to be addressed.

This class is built on a number of pedagogical strategies, including project-based learning, authenticity, and apprenticeship. The ultimate goal, supported by these strategies, is that through this class you will make an actual contribution to the field of educational research, and start a project that could be continued even after the semester is over through academic publications, ongoing research programmes, start-up businesses, or deployment within the OMSCS program.

Readiness Questions

In order to succeed in this class, you should be able to answer yes to the following questions:

- Have you already fulfilled the foundational requirement for the program?
- Are you comfortable with writing several essays throughout the course of the class, including personal reflections, article responses, project proposals, and project reports?
- Are you comfortable with a class that requires significant participation via forum interactions and peer-to-peer feedback opportunities?
- Are you comfortable working in a group; or, alternatively, are you comfortable taking on a

significantly-sized project on your own?

- Are you passionate about education, and ideally, do you already have some preliminary ideas regarding what tools you might like to build or questions you might like to research as part of this class?
- Are you comfortable with a class built on large, open-ended, student-driven projects rather than smaller, more narrowly-defined assignments and exams?

Note that prior experience with EdTech is *not* required beyond your prior OMS coursework. Note also that because the project is very open-ended, you'll be able to define a project that is realistic within your technical qualifications. So, no specific programming knowledge is required. If you choose more of a research-oriented track, you may not need to do any programming at all.

Learning Goals

A learning goal is what you should *know* by the end of the class. The broad learning goal for this class is that, by the end of the class, you will have the requisite knowledge to make a real contribution to the Educational Technology field.

Even established experts in the field do not know everything, however, and neither will you. Instead, by the end of this class, you will have sufficient knowledge to contribute to the field in *some* way, though not every way. This means the learning goal of the class is determined in part by your own goals in taking this class:

- Are you interested in understanding how technology can help education more theoretically? Then your learning goals would include knowledge of research methodologies, promising pedagogical strategies, and current theories in the community.
- Are you interested in designing technologies that can help learners learn better? Then your learning goals would include knowledge of pedagogical strategies, current state-of-the-art tools, and the open problems in education and technology.
- Are you interested in evaluating existing technologies? Then your learning goals would include knowledge of research methodologies in user testing, current state-of-the-art tools, and broader issues surrounding the impact of such tools.
- Are you interested in contributing to the education enterprise more broadly, even if it isn't at the point of learning? Then your learning goals would include knowledge of the current problems in the field, broader issues surrounding the use of tools in supporting education, and the present tools that address those problems.

By achieving these learning goals, you will end the class with the knowledge necessary to contribute to the portion of educational technology in which you are most interested.

Learning Outcomes

If a learning goal is something you should *know* by the end of the course, then a learning outcome is something demonstrable you should be able to *do*. The learning goals were all partially dependent on your area of interest within educational technology, and thus, so also are the outcomes. The learning goals included the knowledge necessary to perform certain tasks, and thus, the learning outcomes are the actual performance of those tasks.

- Are you interested in understanding how technology can help education more theoretically? Then your learning outcome is the ability to design and conduct research or experiments in educational technology, to analyze the results, to report the results, and to position the results in the context of a broader research community.
- Are you interested in designing technologies that can help learners learn better? Then your learning outcome is the ability to design pedagogically sound tools for learning, to position those tools in the broader EdTech industry, and to present a case for the value of those tools.
- Are you interested in evaluating existing technologies? Then your learning outcome is the ability to design and conduct experiments on existing technologies, to gather and analyze participant feedback on those technologies, and to recommend changes that are both pedagogically sound and supported by research.
- Are you interested in contributing to the education enterprise more broadly, even if it isn't at the point of learning? Then your learning outcome is the ability to design tools that support education in other areas besides teaching, to analyze the broader impacts of those tools, and to analyze the effectiveness of those tools compared to existing methods for addressing those problems.

By achieving these learning outcomes, you will end the class not only with the knowledge necessary to contribute, but also with experience in actually contributing.

Learning Assessment

If learning goals are what you should know, and learning outcomes are what you should be able to do, then learning assessments are how we evaluate whether you know what you should know and can do what you should be able to do. The learning goals and outcomes both connected to contributing to educational technology, and so the learning assessments in this course will be based on the extent to which you actually contribute to educational technology.

This contribution will take on different forms depending on your interests. It may be a research contribution to some academic community. It may be a tool to support learning in classrooms or non-traditional learning environments. It may be a technology to support a portion of the broader education enterprise, such as admissions or academic integrity. It may be a report on the effectiveness of certain existing tools or strategies in learning.

The ultimate goal is that the project you choose to take on in this class won't end with the end of

the semester; we hope your project continues on and leads to publications, ongoing research, a start-up business, or a tool we can continue to use here in the program. In order to maximize the chances of that happening, the assessments will include steps to get your work ready for publication or for a start-up pitch.

Learning Strategies

A number of learning strategies are employed to try to connect with these learning goals, outcomes, and assessments. Because this is a class on education, these strategies are also demonstrations of portions of the course content. Some of the learning strategies you will see are:

- **Project-Based Learning.** The entire class is built around a large project, defined by you, that itself should represent an authentic contribution to the EdTech community.
- **Authenticity.** The goal of this course is to make a real contribution to the field. Success in the course won't just mean mastering some concepts in a controlled classroom environment; it will be creating a real, authentic contribution to educational technology.
- **Apprenticeship.** While TAs in most classes focus largely on grading, the primary function of TAs in this class is mentorship. You'll interact closely with your mentor to develop your understanding, propose and scope your project idea, and deliver something valuable by the end of the semester.

Additional pedagogical strategies we'll leverage heavily in this class include learning by doing, learning by teaching, learning by reflection, collaborative learning, communities of practice, and more.

Course Assessments

Course grades are made of the following components:

- **Written Assignments** (a collection of essays and homework assignments): 15%
- **Qualifier Question** (a targeted question based on your interests): 10%
- **Project Proposal** (a project proposal for the remainder of the semester): 10%
- **Project Deliverables** (intermediate deliverables and status checks on the progress of your project): 15%
- **Final Project** (a presentation, paper, and your final project): 35%
- **Participation** (peer review, forum interactions, and other opportunities): 15%

Course Policies

The following policies are binding for this course.

Official Course Communication

You are responsible for knowing the following information:

1. Any pages linked from the Course Guide, including the syllabus.
2. Anything emailed directly to you by the teaching team (including announcements via the course forums or Canvas), 24 hours after receiving such an email.
3. Anything communicated directly to you by your mentor in your mentor thread.

Communicating with Instructors and TAs

Communication with the course teaching team should be handled via the discussion forum. If your question is relevant to the entire class, you should ask it publicly; if your question is specific to you, such as a question about your specific grade or submission, you should ask it privately. Most private questions should be directed specifically to your mentor and can be submitted in your mentor thread.

Late Work

Although this class is largely self-directed, deadlines and weekly routines help our mentors spend the majority of their time interacting with students and a minority handling administrative and organizational tasks. We have made the descriptions of all assignments available on the first day of class so that if there are expected interruptions (business trips, family vacations, etc.), you can complete the work ahead of time. In proposing your project, you are welcome to include external constraints in the planning process and build in time where you know you won't be able to work on your project.

If due to a personal emergency, health emergency, family emergency, or other unforeseeable life event you find you are unable to complete an assignment on time, please post privately to your mentor in your mentor thread with information regarding the emergency. Depending on your unique situation, we will share guidance on how to proceed; if the emergency is projected to delay a significant quantity of the work required for the class, we may recommend withdrawing and reattempting the class at a later date. If the emergency will likely only impact a small amount of the course, we may be able to accept the work late as a one-time exception. If the emergency takes place once you have already completed a significant fraction of the coursework, we may offer an Incomplete grade to allow you to finish the class after the semester is over. Note that institute policies dictate we can only offer an Incomplete to students who have completed 70% of the coursework; if you will not be able to complete at least 70% of the coursework by the end of the term, you will be advised to withdraw instead.

Note that depending on the nature and significance of the request, we may require documentation from the Dean of Students office that the emergency is sufficient to justify offering an incomplete grade or accepting late work. Note also that regardless of the reason, we also cannot promise any particular turnaround time for grading work that was approved to be submitted late; it may be that grades and feedback will not be returned before the end of the term, and it may be that a temporary grade of Incomplete must be entered to leave time to grade work that was accepted late.

If you are not comfortable sharing with us the nature of an emergency, or if you need more comprehensive advocacy, we ask you to go through the Dean of Students' office regarding class absences. The Dean of Students is equipped to address emergencies that we lack the resources to address. Additionally, the Dean of Students office can coordinate with you and alert all your classes together instead of requiring you to contact each professor individually. The Dean of Students is there to be an advocate and partner for you when you're in a crisis; we wholeheartedly recommend taking advantage of this resource if you are in need. You may find information on contacting the Dean of Students with regard to personal emergencies here: <https://studentlife.gatech.edu/request-assistance>

Academic Honesty

All students in the class are expected to know and abide by the Georgia Tech [Academic Honor Code](https://policylibrary.gatech.edu/student-affairs/academic-honor-code). Specifically for us, the following academic honesty policies are binding for this class:

- In written essays, all sources are expected to be cited according to APA style. When directly quoting another source, **both in-line quotation marks, an in-line citation, and a reference at the end of the document** are required. When directly summarizing another source in your own words, quotation marks are not needed, but **an in-line citation and reference at the end of your document** are still required. You should consult the [Purdue OWL Research and Citation Resources](https://owl.purdue.edu/owl/research_and_citation/resources.html) for proper citation practices, especially the following pages: [Quoting, Paraphrasing, and Summarizing](https://owl.purdue.edu/owl/research_and_citation/using_research/quotting_paraphrasing_and_summarizing/index.html), [Paraphrasing](https://owl.purdue.edu/owl/research_and_citation/using_research/quotting_paraphrasing_and_summarizing/paraphrasing.html), [Avoiding Plagiarism Overview](https://owl.purdue.edu/owl/avoiding_plagiarism/index.html), [Is It Plagiarism?](https://owl.purdue.edu/owl/avoiding_plagiarism/plagiarism_faq.html), and [Safe Practices](https://owl.purdue.edu/owl/avoiding_plagiarism/best_practices.html). You should also consult our dedicated pages (from another course) on [how to use citations](http://omscs6460.gatech.edu/research-guide/how-to-use-citations-in-a-paper/) and [how to avoid plagiarism](http://omscs6460.gatech.edu/research-guide/how-to-avoid-plagiarism/).
- Any figures borrowed from other sources must similarly be cited. If you borrow an existing figure and modify it, you must still cite the original figure. It must be obvious what portion of your submission is your own creation.
- Any programming sources, such as existing code or libraries, must be cited as well. Include a link to the original source of the code and clearly note where the copied code begins and ends (for example, with `/* BEGIN CODE FROM (source link) */` before and `/* END CODE FROM (source link) */` after the copied code). Any external libraries, images, or any other materials not created by

you should be referenced either within the code (where possible) or in a README file included with the deliverable.

- It is important to note that “sources” in the above contexts means *any* material that you did not write yourself: it does not matter whether you are referencing academic sources with named authors, general web sites with no named writer, popular open-source libraries with many contributors, or AI-generated text in response to a prompt you provided. Any text that is not originally written by you is considered an external source that should be cited accordingly.
- As the projects you complete in this class are highly personal and original, you are permitted to share them publicly when the semester is over. However, by participating in this class you authorize us to pursue the removal of your content if it is discovered on any public assignment repositories, especially if it is clearly contributed there by someone else.

These policies, including the rules on all pages linked in this section, are binding for the class. Any violations of this policy will be subject to the institute’s Academic Integrity procedures, which may include a 0 grade on assignments found to contain violations; additional grade penalties; and academic probation or dismissal. Note that if you are accused of academic misconduct, you are **not** permitted to withdraw from the class until the accusation is resolved; if you are found to have participated in misconduct, you will not be allowed to withdraw for the duration of the semester, nor will you be eligible for grade replacement for this class. If you withdraw anyway, you will be forcibly re-enrolled without any opportunity to make up work you may have missed while illegally withdrawn.

AI Collaboration Policy

Relative to other classes, your goal in this class is somewhat different. Your goal in this class will ultimately be to contribute something meaningful to the world of educational technology representing roughly 100 hours of total work. Toward this end, you are welcome and encouraged to use whatever tools necessary to enhance the value of that 100 hours of total work. Thus, unlike other classes, you are permitted to directly use code generated by AI tools to build out your project as long as you sufficiently credit these assistants and adjust your project expectations accordingly. In this class, the important adjustment is that AI assistance should allow you to do more than you would have been able to otherwise, rather than allowing you to do the same amount in less time.

However, note that this policy only applies to functional artifacts like code and analysis. It does not apply to your own assignments reflecting your understanding of the literature, nor to your final paper and presentation reflecting your description of your project trajectory. All text written in natural language for delivery as part of the course assignments must be your own. Toward that end, the same academic integrity policy above applies to AI assistance: you are welcome to consult with AI agents just as you would consult with classmates, discuss ideas with friends, and seek feedback from colleagues. However, just as you would not hand your device to someone

else to directly fix or improve your classwork, so also you may not copy anything directly from an AI agent into your assignment document.

Note that any concrete evidence of direct plagiarism of content from AI without proper citation may be grounds for deductions that go beyond just the area of the assignment where the plagiarism took place; for example, if your response to one of five questions on a particular assignment contains clear indicators of plagiarism from AI, the penalty assigned may go beyond the weight of that question alone. This is representative of the cost of overreliance on AI in the real world: if your colleagues notice you are outsourcing your work to AI without adequate oversight in the real world, it calls into question the reliability of *all* work you deliver, not just the work on which you are caught plagiarizing.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, [contact the Office of Disability Services \(https://disabilityservices.gatech.edu/\)](https://disabilityservices.gatech.edu/) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter.

Student Conduct Expectations

Students are expected to engage respectfully and actively in the academic environment: completing assignments, participating meaningfully in course forums and discussions, and acting with integrity in accordance with the Georgia Tech Student Honor Code and Code of Conduct. Students are expected to adhere to the course's late work policy and to use the course forum as the designated space for academic questions and concerns.