

CS6460: Educational Technology (FA26)

Course syllabus · Georgia Institute of Technology · Canvas course 536056

Welcome!



Start Here



Syllabus



Assignments



Forum



Help

Quick Links

To help with navigation, here are some of the links you'll be using frequently in this course:

- Tools: [Canvas](#) | [Peer Review](#)
- Course Pages: [Fall 2026 Syllabus](#) | [Fall 2026 Full Calendar](#) | [Course FAQ](#) | [Class Participation](#) | [Peer Participation](#)
- Labs: [Module 2 Lab](#) | [Module 4 Lab](#) | [Module 6 Lab](#)
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Course Instructor



David A. Joyner, PhD

Start Here! (Well, There!)

Hi! Welcome to CS6460. This course will begin at 9AM on the first day of the semester; if you're visiting before then, return then to check the course out!

This course is different from most other courses you have taken in OMSCS. The first half of the semester is six modules of content, delivered through Ed Lessons and assessed by three quizzes and three labs; the second half is a project of your own design that you propose, build, and evaluate. To get started, click Start Here above.

About this Course

If you would like to read more about this class, you should check out the course syllabus for this semester, located [here on Canvas](#). Here, you'll find the course calendar, assignment descriptions, and everything else you

need to succeed in this course.

Finally, as you'll see us say in several places, this course heavily utilizes the course discussion forum. That is where you'll see course announcements, get answers to your questions, participate in class discussions, and more. So, join today!

This syllabus page provides information about the Georgia Tech OMS CS6460 class on Educational Technology relevant only to the Fall 2026 semester. Note that this page is subject to change at any time. Below, find the course's calendar, grading criteria, and other information.

Course Calendar At-A-Glance

Below is the calendar for the Fall 2026 OMS CS6460 class. Note that assignment due dates are all Sundays at 11:59PM [Anywhere on Earth time](#). We recommend [changing your time zone in Canvas](#) to show the due date in your local time. For the complete course calendar, please see the [Full Course Calendar](#).

Week #	Week Of	Module	Deliverable	Assignment Due Date
1	08/24/2026	0, 1	Introductions, Start-of-Course Survey , Syllabus Comprehension Quiz	08/30/2026
2	08/31/2026	2	Module 1 Quiz	09/06/2026
3	09/07/2026	3	Module 2 Lab	09/13/2026
4	09/14/2026	4	Module 3 Quiz	09/20/2026
5	09/21/2026	5	Module 4 Lab , Quarter-Course Survey	09/27/2026
6	09/28/2026	6, 7	Module 5 Quiz	10/04/2026
7	10/05/2026		Module 6 Lab	10/11/2026
8	10/12/2026		Project Proposal	10/18/2026
9	10/19/2026		Mid-Course Survey	10/25/2026
10	10/26/2026		Project Milestone 1	11/01/2026
11	11/02/2026			11/08/2026
12	11/09/2026		Project Milestone 2	11/15/2026
13	11/16/2026			11/22/2026
14	11/23/2026		Project Milestone 3	11/29/2026
15	11/30/2026			12/06/2026
16	12/07/2026		Final Project	12/13/2026
17	12/14/2026		End-of-Course Survey , CIOS Survey	12/20/2026

The course modules are delivered through Ed Lessons; click **Ed Lessons** in the course navigation to work through them.

The modules referenced above are made up of the following lessons. Where the figure is available, the approximate total video runtime in minutes is given in parentheses, both for each module as a whole and for each individual lesson within it:

Module 0: Introduction to the Course (34)

- Introduction to the Course (34)

Module 1: Principles of Learning Sciences (245)

- Introduction to Principles of Learning Sciences (7)
- Constructivism (30)
- Constructionism (23)
- Direct Instruction (21)
- Behaviorism (24)
- Cognitivism (21)
- Human and Machine Learning (15)
- Metacognition (23)
- Sociocultural Theory (18)
- Motivation (42)
- Ethical Considerations (19)
- Conclusion to Foundational Principles (2)

Module 2: Categories of Learning Technologies (155)

- Introduction to Categories of Learning Technologies (4)
- Educational Games (20)
- Exploratory Learning Environments (20)
- Intelligent Tutoring Systems (19)
- Collaborative Learning Tools (19)
- Learner-Centered Management Tools (18)
- Makerspaces and Robotics (21)
- Emerging Directions (30)
- Conclusion to Categories of Learning Technologies (4)

Module 3: Principles of Learning Experiences (191)

- Introduction to Principles of Learning Experiences (6)
- TPACK (Technological Pedagogical Content Knowledge) (22)
- Project- and Problem-Based Learning (21)
- Curriculum (18)
- Mayer's Multimedia Learning Principles (29)
- Accessibility and Universal Design for Learning (UDL) (21)
- Hyflex and the Distributed Classroom Matrix (18)
- The SAMR Model (11)
- Communities of Inquiry (20)
- Ethical Considerations (19)
- Conclusion to Foundational Principles of Learning Experiences (6)

Module 4: Categories of Learning Experiences (195)

- Introduction to Categories of Learning Experiences (4)
- Traditional Classrooms (27)
- Distributed Classrooms (23)
- Asynchronous Classrooms (24)
- Independent Learning Apps (26)
- Open Educational Resources (31)
- Informal Learning Environments (26)
- Emerging Directions (30)
- Conclusion to Categories of Learning Experiences (4)

Module 5: Principles of Learning Measurement

- Introduction to Principles of Learning Measurement
- Measurement Fundamentals
- Taxonomies of Learning
- Assessment Styles
- Grading Philosophies
- Feedback Frameworks
- Alignment & Rubric Design
- Peer Assessment
- Ethical Considerations in Researching Learners
- Ethical Considerations in Assessment
- Conclusion to Foundational Principles of Learning Measurement

Module 6: Designing Assessments and Evaluations

- Introduction to Designing Assessments and Evaluations
- Assessment Formats
- Scoring and Delivering Assessments
- Designing an Evaluation
- Analyzing and Interpreting Results
- Measurement at Scale
- Conclusion to Designing Assessments and Evaluations

Module 7: Conclusion to the Course

- Conclusion to the Course

Course Assessments

Below are the various assessments in this course, as well as the relative importance attached to each. All assignments must be submitted to the correct place in Canvas by the posted deadlines; after submission, we strongly recommend returning to the assignment page and downloading your assignment to confirm you submitted the right document to the right place as we cannot give extensions for instances where the wrong file was uploaded.

Final grades will be calculated as an average of all individual grade components, weighted according to the percentages below. Students receiving a final average of 90 or above will receive an A; of 80 to 90 will receive a B; of 70 to 80 will receive a C; of 60 to 70 will receive a D; and of below 60 will receive an F. Note that graduate students (CS6460) are evaluated at a higher standard than undergraduate students (CS4660), and so the undergraduate section's final grade distribution may be curved to match the graduate student's grade distribution.

Quizzes (15%)

There are three quizzes in this course, one covering each of the three principles modules. Quizzes are timed, digitally proctored, closed-book, and closed-note: no outside aid, scratch paper, or breaks are permitted. Their goal is to confirm you have firm command of the course's core vocabulary and frameworks, which the labs and the project then ask you to actually use. The quizzes and their practice quizzes open on Monday of Week 2; the Honorlock On-Boarding Quiz is open from the first day of class. For a complete description of the quizzes, see the pages dedicated to [About the Quizzes](#), [Module 1 Quiz](#), [Module 3 Quiz](#), and [Module 5 Quiz](#).

Labs (15%)

There are three labs in this course, one following each of the even-numbered modules. Each lab asks you to spend real time inside an existing learning technology, learning experience, or assessment, and then critique it against the principles from the module that preceded it. The goal is to practice applying the course's principles to things that already exist, before you go on to apply them to something of your own. For a complete description of the labs, see the pages dedicated to [Module 2 Lab](#), [Module 4 Lab](#), and [Module 6 Lab](#).

Project Proposal (10%)

Roughly midway through the semester, you will propose the project you will spend the remainder of the term building. The proposal describes, in advance, everything you intend to deliver for the final project (your audience and context, your learning technology, your learning experience, your assessments, and your evaluation plan) and justifies each of those choices against the course material. Its goal is to commit you to a scope you can actually finish, and to surface problems while there is still time to fix them. For a complete description of the project proposal, see the page dedicated to [Project Proposal](#).

Project Milestones (15%)

There are three project milestones spread across the second half of the semester. Each is a short video in which you show what you have built so far, explain the reasoning behind it using course principles, and note any ways your expectations for the final project have changed. Their goal is to get you feedback from your classmates and the teaching team while there is still time to act on it, and to keep the project moving steadily rather than collapsing into a final-week scramble. For a complete description of the project milestones, see the pages dedicated to [Project Milestone 1](#), [Project Milestone 2](#), and [Project Milestone 3](#).

Final Project (35%)

The final project is the culmination of the course: a complete learning initiative comprising a learning technology, a learning experience built around it, a set of assessments, and a plan for evaluating whether the whole thing works. You will build it so that your peers and the teaching team can enter the experience and participate in it as learners, and deliver it as an archive of everything needed to do so. Its goal is to have you practice, end to end, the full arc of work this course covers. For a complete description of the final project, see the page dedicated to [Final Project](#).

Participation (10%)

Because this course is driven by the community of students, participation is required and assessed explicitly. Participation can come in many forms: interacting and posting on the course forum; completing class surveys; completing peer review tasks; participating in conversations via other tools; participating in your classmates' experiments and beta tests; completing the secret survey by clicking the hidden link here before the end of week 2 to indicate you read the entire syllabus; and more. Generally, participation is simply anything you do to make the class better for everyone else. Participation will be evaluated according to a point system described on the Class Participation assignment page. Note that of this 10%, one point is earned solely by completing the course surveys and the syllabus comprehension quiz, which are tracked separately in the gradebook. For a complete description of the participation policy, [see its dedicated page](#).

Course Policies

The following policies are binding for this course.

Official Course Communication

You are responsible for knowing the following information:

1. Anything posted to this syllabus (including the pages linked from here).
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.

It is important to note: we use Ed Discussion as the course discussion forum in this class. Ed Discussion is the venue for interaction with your classmates and instructors, both for public class discussion and for private questions to the teaching team.

Generally speaking, we will post announcements via Canvas and cross-post their content to the course forum; you should thus ensure that your Canvas settings are such that you receive these announcements promptly, ideally via email (in addition to other mechanisms if you'd like). Georgia Tech generally recommends students to check their Georgia Tech email once every 24 hours. So, if an announcement or message is time sensitive, you will not be responsible for the contents of the announcement until 24 hours after it has been sent.

Note that this means you won't be responsible for knowing information communicated in several other methods we'll be using. You aren't responsible for knowing anything posted to the course forum that isn't linked from an official announcement. You aren't responsible for anything said in Slack or any other third-party sites we may sometimes use to communicate with students. You don't need to worry about missing critical information so long as you keep up with your email and understand the documents on this page. This also applies in reverse: we do **not** monitor our Canvas message boxes and we may not respond to direct emails. If you need to get in touch

with the course staff, please post privately to the course forum (either to all Instructors or to an instructor individually) and tag the instructor in the relevant post.

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.

Our workflow is to regularly filter the forum for Unresolved posts, which includes top-level threads with no answer accepted by the original poster, as well as mega-threads with unresolved follow-ups. If your question requires an official answer or follow-up from an instructor or teaching assistant, make sure that it is posted as either a Question or as a follow-up to a mega-thread, and that it is marked Unresolved. Once an instructor or TA has answered your question, it will automatically be marked as Resolved; if you require further assistance, you are welcome to add a follow-up, but make sure to unmark the question as Resolved in order to make sure that it is seen by a member of the teaching team.

Similarly, in order to keep the forum organized, please post as a Post or Note instead of a Question if your question does not require an official response from the teaching team. For example, if you are interested in getting multiple perspectives from classmates, getting feedback on your ideas, or having a discussion that does not have a single answer, please use Post or Note instead of Question. Please reserve Question threads for questions that will likely have a single official response. TAs and instructors will regularly convert Questions to Posts or Notes that do not need a single official answer, but it will save time and allow them to focus their attention on other students if you correctly categorize your post in the first place.

Finally, any private communication with the teaching assistants or instructors should happen through a private post on Ed Discussion.

Late Work

Although this class is largely self-directed, deadlines and weekly routines help our TAs 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 the teaching team on the course forum 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 and AI Collaboration

All students in the class are expected to know and abide by the Georgia Tech [Academic Honor Code](#). Specifically for us, the following academic honesty policies are binding for this class:

- **Quizzes:** Quizzes are closed-book, closed-note, and digitally proctored. No outside aid is permitted on the quizzes, and no scratch paper or breaks are permitted during the quizzes. Students may not seek nor share quiz content.
- **Written Work:** Written work—lab reports, the project proposal, project milestone reports, the final project report, peer review, forum posts, etc.—must be student-written. Copying from any other sources—whether that be an existing source, another person, an LLM, or any other source—is prohibited in written work. This includes using AI to directly modify and improve content you have previously written.
- **Citation & Plagiarism:** If you reference academic sources in your written work, they must be cited both in-line and in a reference list at the end of the document using APA format. Any content borrowed directly from another source—including direct quotes and figures—must be clearly marked and cited as such, and it should always be obvious which portions of a submission are your own creation. For more information on proper citation and avoiding plagiarism, consult the [Purdue OWL Research and Citation Resources](#), especially the following pages: [Quoting, Paraphrasing, and Summarizing](#), [Paraphrasing](#), [Avoiding Plagiarism Overview](#), [Is It Plagiarism?](#), and [Safe Practices](#).
- **AI and Outside Assistance:** Outside assistance is permitted—and even encouraged—for the content of the class project itself so long as it is used transparently. This includes existing code, external libraries, and other materials you did not create yourself, as well as AI assistance, which may be used to generate code, help write and design the content of the learning experience, create assessment questions, and design learning analyses. This permission comes with three caveats. First, any such use must be directly disclosed, with decent granularity: it is not sufficient to say that there was “some” outside or AI help on portions, but rather, what content, what code, etc. came from elsewhere must be shared. Second, any contributions from these sources are your own responsibility; you may be penalized for any errors in your submission. Third, this assistance is expected to expand the scope of what you are able to accomplish, not to replace your own

work: the goal is to let you deliver more than you otherwise could, rather than to deliver the same project in less time.

- **Public Sharing:** 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 penalties may extend beyond the specific portion of an assignment where a violation is found; for example, if your response to one of five questions on a particular assignment contains clear indicators of plagiarism, the penalty assigned may go beyond the weight of that question alone. This is representative of the cost of overreliance on undisclosed outside work in the real world: if your colleagues notice you are outsourcing your work without adequate oversight, it calls into question the reliability of *all* work you deliver, not just the work on which you are caught.

Note also 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.

Feedback

As mentioned previously, this course is as much an experiment in educational technology as it is a class on educational technology. First, because this class is experimental and we are continually striving to improve it, there are bound to be things that go wrong. We ask your patience and support as we figure things out, and in return, we promise that we, too, will be fair and understanding, especially with anything that might impact your grade or performance in the class. Second, we want to consistently get feedback on how we can improve and expand the course for future iterations. You can take advantage of the feedback box on the course forum (especially if you want to gather input from others in the class), give us feedback on the surveys, or contact us directly via private course forum messages.