
MAE 4652:**Technology for Teaching Secondary School Mathematics**

CRN: 14160, Section: 001, Credit Hours: 3

COURSE SYLLABUS**Semester:** Spring 2026**Class Meeting Days:** Wednesdays

- 01/14, 02/18, 03/11, 04/01, 04/29 in person
- 1/21, 1/28, 02/04, 02/11, 02/25, 03/04, 03/25, 04/08, 04/15, 04/22 online

Class Meeting Time: 9:00am – 12:00 pm**Class Meeting Location:** EDU 413**Instructor:** Eugenia Vomvoridi-Ivanovic**Office Location:** EDU302A**Office Hours:** By Appointment**Email:** eugeniav@usf.edu

I. Instructor Contact Information and Communication

Feel free to call me by my first name (phonetically: Ev-ye-NEE-ah), with or without the “Dr.” in front of it. I really do not mind...whatever you are most comfortable with. Some of my students call me Eugenia, but most of my students prefer to call me Dr. VI. It is totally up to you 😊

The best way to reach me is via USF email. I typically reply to student emails within 24 hours, but it may take me a bit longer to reply to your email depending on when it was sent. If you need to reach me ASAP, send me a text message to my cell (813-369-9665) and I will call you back as soon as I can (most likely within an hour but it depends on the time the text is sent). Please do not call. Text me and I will call/text you back.

II. University Course Description

This course provides prospective teachers an opportunity to develop concepts, skills, and instructional procedures for integrating technology for teaching in secondary mathematics classrooms. The course is restricted to majors.

III. Course Prerequisites

N/A

IV. Course Purpose

This course is designed to prepare prospective secondary mathematics teachers (grades 6–12) to thoughtfully, ethically, and effectively integrate technology into mathematics teaching and

learning. Rather than treating technology as an add-on or efficiency tool, the course emphasizes technology as a **pedagogical resource** that can deepen conceptual understanding, support mathematical reasoning, and broaden access to rigorous mathematics learning experiences.

The course focuses on technologies that are **specific to teaching mathematics**, including dynamic graphing environments, virtual manipulatives, geometry software, data analysis tools, and generative artificial intelligence (AI). Students will explore how these technologies can be used to support mathematics instruction with particular attention to task design, classroom decision-making, and assessment in **algebra, geometry, probability, and statistics**.

This course serves as a **required core course** in the secondary mathematics education program and is taken concurrently with a secondary mathematics methods course that includes high school field observations. As such, students are expected to make ongoing connections between course content, classroom observations, and their developing identities as mathematics teachers. The course supports students in moving from “learning about” technology to **learning how to teach mathematics with technology** in intentional, student-centered ways.

By the end of the course, students will have developed a foundational toolkit for evaluating, selecting, and designing technology-enhanced mathematics tasks and assessments, as well as a principled stance on the role of emerging technologies—particularly generative AI—in secondary mathematics classrooms.

V. Course Format

This course is offered in a **hybrid format**, combining five in-person class meetings with asynchronous online learning activities throughout the semester. The in-person class sessions are scheduled strategically to maximize opportunities for hands-on exploration, collaborative task design, peer teaching, and structured feedback.

- In-person sessions will emphasize:
 - Active learning and discussion
 - Technology exploration and task walkthroughs
 - Micro-teaching and peer feedback
 - Synthesis of ideas across mathematical domains
- Asynchronous online work will include:
 - Guided technology explorations
 - Short design and reflection assignments
 - Connections to students’ concurrent field observations
 - Engagement with AI tools for lesson planning and assessment

This course is intentionally designed to minimize traditional lecture. Instead, students should expect to engage in **collaborative learning, design-based work, and reflective practice**.

Instructional strategies are grounded in research on effective mathematics teaching, teacher learning, and technology integration, with an emphasis on developing professional judgment rather than technical proficiency alone.

Students will interact with one another and with the instructor through Canvas, shared digital tools, and in-person collaborative activities. Because this course emphasizes learning through practice and feedback, **consistent participation**—both online and in person—is essential.

VI. Student Learning Outcomes

Upon successful completion of this course, students will be able to:

- **Analyze and evaluate** digital technologies, including generative artificial intelligence (AI), for their potential to support conceptual understanding, reasoning, and access to high-quality mathematics instruction in secondary mathematics classrooms.
- **Design and implement** technology-enhanced mathematics tasks and lessons for grades 6–12 that integrate appropriate digital tools to support student learning in algebra, geometry, probability, and statistics.
- **Use multiple digital representations** (e.g., graphs, tables, simulations, dynamic visualizations) to model mathematical ideas and support sense-making and communication.
- **Develop and apply** formative and summative assessment strategies that leverage technology and AI to gather evidence of student thinking and inform instructional decision-making.
- **Demonstrate ethical, responsible, and transparent use** of technology and AI in mathematics teaching, including attention to data privacy, academic integrity, and professional judgment.
- **Reflect on and justify instructional decisions** related to technology integration by connecting theory, field-based observations, and classroom practice.

VII. Course Objectives

The following course objectives are aligned with—and provide further specificity for—the approved Student Learning Outcomes listed above. Upon successful completion of this course, students will be able to:

1. Analyze the affordances and limitations of various technologies for supporting conceptual understanding in secondary mathematics.
2. Design technology-enhanced mathematics tasks for algebra, geometry, probability, and statistics that promote reasoning, sense-making, and student engagement.
3. Use dynamic mathematics software (e.g., graphing, geometry, and data analysis tools) to create multiple representations of mathematical ideas.
4. Critically evaluate the role of generative AI in mathematics teaching, including ethical considerations, transparency, and appropriate use.
5. Develop and refine formative and summative assessment strategies that leverage technology and AI to support student learning.
6. Connect technology integration decisions to observations from secondary mathematics classrooms and principles of effective mathematics instruction.
7. Communicate and justify instructional decisions related to technology use in clear, professional, and reflective ways.

VIII. Required Texts and/or Readings and Course Materials

Required Texts:

There is **no required textbook** for this course.

All required readings, videos, and instructional materials will be made available through:

- Canvas
- The USF Library (library-accessible or open-access resources)
- Public-domain or freely available professional organizations and platforms

This approach ensures that all course materials are **free and accessible to all students**.

Required Technology and Software (all free):

- A laptop or tablet capable of accessing web-based tools
- Reliable internet access

- Access to free, web-based mathematics platforms (e.g., Desmos, GeoGebra, CODAP, Google Sheets)
- Access to generative AI tools with free tiers (specific tools will be introduced and discussed in class)

Students will not be required to purchase or subscribe to any paid software.

IX. Supplementary (Optional) Texts and Materials

Supplementary readings and resources may be recommended throughout the semester to support individual interests or deepen understanding. These materials are **optional** and will be clearly labeled as such.

Examples may include:

- Practitioner articles from mathematics education journals
- Open-access research articles related to technology, AI, and mathematics education
- Professional organization resources (e.g., NCTM, AMTE)
- Optional tutorials or tool-specific guides

Full citations and access information for any supplementary materials will be provided in Canvas.

X. How to Succeed in this Course

This course is designed to support your growth as a **future secondary mathematics teacher**, not simply to build technical skills. Success in this course depends less on memorization and more on **engagement, reflection, experimentation, and professional judgment**. The strategies below will help you get the most out of the course.

What to Expect from This Course

- This is a **hands-on, design-focused course**. You will be asked to try tools, create tasks, revise your work, and reflect on your instructional decisions.
- You are **not expected to be an expert** in educational technology or AI at the start of the semester.
- Mistakes, revisions, and questions are a normal and expected part of learning in this course.
- In-person class time is limited and valuable; it will focus on **collaboration, feedback, and application**, not lectures.

Strategies for Success

- **Engage consistently with the asynchronous work.**
The online components of this course are essential preparation for in-person sessions. Completing asynchronous activities on time will allow you to participate fully in hands-on work, discussions, and peer teaching during class meetings.
- **Focus on pedagogy, not just tools.**
This course is not about learning technology for its own sake. Always ask:
 - What mathematical ideas does this tool help students understand?
 - How does this technology support reasoning, sense-making, or assessment?
 - What are the limitations or risks of using this tool?
- **Make connections to your field observations.**
You are encouraged to regularly connect course ideas to what you are seeing in high school classrooms. Notice when technology is used well, when it is underused, and when it may interfere with learning. These observations will strengthen your reflections and design work.

- **Use generative AI responsibly and thoughtfully.**
AI is an important focus of this course, but it should be used as a **thinking partner**, not a replacement for your own reasoning. Always:
 - Be transparent about AI use
 - Critically evaluate AI-generated outputs
 - Revise and adapt AI-generated materials based on your professional judgment
- **Learn through collaboration and feedback.**
With a small class size, your peers are a key learning resource. Be open to giving and receiving feedback, asking questions, and sharing partial or evolving ideas. Teaching is inherently collaborative, and this course reflects that reality.
- **Manage your time intentionally.**
Although the course does not meet weekly in person, it is not a “light” course. Plan to engage with course materials every week and avoid letting asynchronous work accumulate.

Knowledge and Skills You Should Bring into This Course

Students entering this course are expected to have:

- Foundational knowledge of **secondary mathematics content**, including algebra, geometry, and basic statistics
- Prior coursework in **mathematics education or methods** (taken concurrently or previously)
- Basic comfort with using a computer, web-based platforms, and file sharing
- Willingness to learn new technologies and adapt to unfamiliar tools

You do **not** need prior experience with:

- Advanced educational technology
- Coding or programming
- Artificial intelligence tools for teaching

XI. Grading Scale

Grading Scale (%)

94 – 100	A	74 – 76	C
90 – 93	A-	70 – 73	C-
87 – 89	B+	67 – 69	D+
84 – 86	B	64 – 66	D
80 – 83	B-	60 – 63	D-
77 – 79	C+	0 – 59	F

XII. Grade Categories and Weights

Assignments in this course are designed to reflect the authentic work of secondary mathematics teachers, including technology exploration, instructional task design, revision based on feedback, assessment design, professional communication, and reflection. Assessment emphasizes **iterative learning, professional judgment, and revision**, rather than exams.

Assignment Category	Percent of Final Grade
Technology Explorations / Simulations	20%
Discussion Board Participation	15%

Assignment Category	Percent of Final Grade
Exit Tickets / Reflective Check-Ins	10%
Technology-Enhanced Mathematics Task Portfolio	30%
AI-Enhanced Assessment Design Project	10%
Peer Teaching	10%
Final Technology Integration Philosophy Statement	10%
Total	100%

Essay and Project Assignments

Technology Explorations / Simulations (20%). Students will complete **five Technology Exploration assignments** focused on free, web-based tools used in secondary mathematics teaching (e.g., graphing tools, dynamic geometry environments, data analysis platforms, simulations, and generative AI tools). Each exploration is worth **4 points**, for a total of **20 points**. These assignments emphasize **pedagogical analysis**, not technical proficiency. Students will analyze how technologies support or constrain mathematical reasoning, sense-making, and instruction.

Discussion Board Participation (15%). Students will participate in **five structured asynchronous discussions**, each worth **3 points**, for a total of **15 points**. Discussions are designed to support professional dialogue about teaching mathematics with technology and AI. Students are expected to:

- Post an initial response that addresses the prompt thoughtfully and connects to course ideas
- Respond substantively to at least two peers

Discussion contributions are evaluated based on **substance, clarity, engagement, and professionalism**.

Exit Tickets / Reflective Check-Ins (10%). Students will complete **five Exit Tickets**, each worth **2 points**, for a total of **10 points**. Exit Tickets are brief reflections (150–250 words) designed to help students synthesize learning and connect course ideas to instructional practice and field observations. Exit Tickets are graded for **thoughtfulness, completion, and clarity**.

Technology-Enhanced Mathematics Task Portfolio (30%). The portfolio is the central assignment in this course and documents students' growth in designing technology-enhanced mathematics instruction. Students will develop tasks across **three mathematical domains**:

- Algebra
- Geometry & Measurement
- Data / Probability / Numerical Analysis

Each domain contributes **10 points**, for a total of **30 points (30%)**.

Task Development Cycle (Per Domain). Each domain follows the same instructional cycle:

1. **Draft Technology-Enhanced Mathematics Task (2 points)**
Students draft a classroom-ready technology-enhanced instructional task and submit it for instructor feedback. Drafts are graded using a **complete/incomplete rubric** and are intended to be low-stakes and feedback-focused.
2. **Revised Technology-Enhanced Mathematics Task (4 points)**
Students revise their task based on instructor feedback, participate in peer feedback during an in-person class session, and submit a final revised version. These revised tasks are evaluated using an **analytic rubric**.
3. **Additional Portfolio Task (4 points)**
Students submit an additional technology-enhanced task for the same domain as part of the final portfolio submission. This task is evaluated using the same analytic rubric.

The portfolio represents **revised, polished work** suitable for professional use.

AI-Enhanced Assessment Design Project (10%). Students will complete one AI-Enhanced Assessment Design Project worth **10 points**. This project focuses on the ethical and responsible use of generative AI to support assessment design in secondary mathematics classrooms. Students will design an assessment-related artifact and document how AI was used to:

- Generate or refine ideas
- Anticipate student thinking
- Support feedback or revision

Students must disclose AI use and demonstrate professional judgment.

Peer Teaching (10%). Students will participate in a peer teaching experience during the last in-person class session. This assignment is worth **10 points**.

Students will:

- Facilitate a technology-enhanced instructional task
- Explain mathematical goals, technology use, and anticipated student thinking
- Engage in professional dialogue with peers

Final Technology Integration Philosophy Statement (10%). Students will submit a **Final Technology Integration Philosophy Statement** worth **10 points**. This 1–2 page statement articulates students' beliefs about teaching mathematics with technology and generative AI, including instructional purpose, boundaries, and classroom examples.

Final Note on Assessment

This course emphasizes **learning through practice, reflection, and revision**. Students are encouraged to take intellectual risks, ask questions, and use feedback to strengthen and resubmit their work. Clear rubrics and feedback will be provided for all major assignments.

XIII. Course Schedule*.

Unless explicitly stated otherwise, all assignments are due **Wednesdays by 9:00 AM**, regardless of whether the class meets in person or asynchronously.

Final revised technology-enhanced tasks submitted after in-person peer feedback may be due at **midnight**, as noted in Canvas.

** The schedule below is subject to revision. Any changes will be announced in class and/or posted in Canvas.*

Week	Topics / Focus	Work Due
Week 1	Course introduction; framing technology & AI	• Complete Week 1 module
Week 2	Foundations of technology integration	• Complete Week 2 module • Submit: Exit Ticket / Reflective Check-In
Week 3	Technology-enhanced task design	• Complete Week 3 module • Submit: Technology Exploration / Simulation • Submit: Discussion Board Participation
Week 4	Technology-enhanced Algebra I	• Complete Week 4 module • Submit: Technology Exploration / Simulation • Submit: Draft Technology-Enhanced Mathematics Task (Algebra) • Submit: Exit Ticket / Reflective Check-In
Week 5	Technology-enhanced Algebra II & functions	• Complete Week 5 module • Submit: Revised Technology-Enhanced Mathematics Task (Algebra) • Submit: Discussion Board Participation
Week 6	Algebra in practice (in person)	• Complete Week 6 module • Submit: Final Revised Technology-Enhanced Mathematics Task (Algebra)
Week 7	Technology-enhanced Geometry & Measurement	• Complete Week 7 module • Submit: Technology Exploration / Simulation • Submit: Exit Ticket / Reflective Check-In
Week 8	Technology, reasoning, and proof	• Complete Week 8 module • Submit: Draft Technology-Enhanced Mathematics Task (Geometry) • Submit: Discussion Board Participation
Week 9	Geometry in practice (in person)	• Complete Week 9 module • Submit: Final Revised Technology-Enhanced Mathematics Task (Geometry)

Week	Topics / Focus	Work Due
Week 10	Spring Break	—
Week 11	Technology-enhanced Data, Probability & Numerical Analysis	• Complete Week 11 module • Submit: Technology Exploration / Simulation • Submit: Draft Technology-Enhanced Mathematics Task (Data / Numerical Analysis) • Submit: Exit Ticket / Reflective Check-In
Week 12	Data in practice (in person)	• Complete Week 12 module • Submit: Final Revised Technology-Enhanced Mathematics Task (Data / Numerical Analysis)
Week 13	Foundations of AI in mathematics teaching	• Complete Week 13 module • Submit: Technology Exploration / Simulation • Submit: Discussion Board Participation
Week 14	AI for assessment	• Complete Week 14 module • Submit: AI-Enhanced Assessment Design Project
Week 15	Course synthesis & peer teaching preparation	• Complete Week 15 module • Submit: Peer Teaching Materials • Submit: Draft Technology Integration Philosophy Statement • Submit: Discussion Board Participation
Week 16	Peer teaching & reflection (in person)	• Complete Week 16 module
Final Exam Week	Final submissions	• Complete Final module • Submit: Technology-Enhanced Mathematics Task Portfolio (additional tasks) • Submit: Final Technology Integration Philosophy Statement

XIV. USF Core Syllabus Policies

The University of South Florida has a set of **Core Syllabus Policies** that apply to all courses and cover important topics, including but not limited to:

- Student recording of class sessions
- Academic integrity and student grievances
- Student accessibility services
- Academic disruption
- Religious observances
- Academic continuity
- Food insecurity
- Pregnancy and related conditions
- Sexual harassment and discrimination

Students are responsible for reviewing and understanding these policies, which are maintained centrally by the university and may be updated periodically.

The full and current set of USF Core Syllabus Policies can be found at:

<https://www.usf.edu/provost/faculty-success/resources-policies-forms/core-syllabus-policy-statements.aspx>

XV. Student Recordings

Policies related to student recordings of class sessions, including guidance associated with the Intellectual Freedom and Viewpoint Diversity Act, are included in the USF Core Syllabus Policies linked above and further described in *section XVII. Course Policies: Technology and Media* below. Students are expected to follow university guidelines regarding recording, sharing, or distributing instructional content.

XVI. Course Policies: Grades

Late Work Policy: Unless otherwise noted, all assignments are due Wednesdays by 9:00 AM. Assignments should be submitted on time. Late assignments may or may not be accepted, depending on the circumstances and the discretion of the instructor. If there is a problem, it is helpful to talk with me before it becomes a crisis.

Grades of "Incomplete": An "I" grade may be awarded to a student only when a small portion of the student's work is incomplete and only when the student is otherwise earning a passing grade. The time limit for removing the "I" is to be set by the instructor of the course. For undergraduate students, this time limit may not exceed two academic semesters, whether or not the student is in residence, and/or graduation, whichever comes first. For graduate students, this time limit may not exceed one academic semester. "I" grades not removed by the end of the time limit will be changed to "IF" or "IU," whichever is appropriate.

Rewrite Policy: All written assignments may be rewritten for a revised grade. Note all rewrites must be completed by 05/06.

Attendance and Participation Policy: The quality of both synchronous and asynchronous (discussion board posts) class sessions is, in large part, a function of the participation of all students; therefore, when a student is absent from synchronous class sessions or does not post thoughtful responses to discussion board posts and peer responses, the quality of the learning experience diminishes.

Types of Absences:

- **Scheduled Excused Absence:** Scheduled absences involve time conflicts that are known in advance, for which students have notified the instructors in writing no later than the second synchronous class meeting. Acceptable reasons for scheduled absences include observation of religious holy days, court-imposed legal obligations (e.g., jury duty and subpoenas), special requirements of other courses and university- sponsored events (e.g., performances, athletic events, judging trips), and requirements of military service.
- **Unscheduled Excused Absences:** Unscheduled absences involve unforeseen emergencies such as illness, injury, hospitalization, deaths in the immediate family, consequences of severe weather, and other crises.
- **Unexcused Absence:** Any absence that does not meet the criteria of an excused absence or has not been communicated to the instructor in a timely manner.
- **Tardiness:** Students should join class sessions, ready to fully participate in class at the scheduled start time.

Campus Free Expression: It is fundamental to the University of South Florida's mission to support an environment where divergent ideas, theories, and philosophies can be openly exchanged and critically evaluated. Consistent with these principles, this course may involve discussion of ideas that you find uncomfortable, disagreeable, or even offensive. In the instructional setting, ideas are intended to be presented in an objective manner and not as an endorsement of what you should personally believe. "Objective" means that the idea(s) presented can be tested by critical peer review and rigorous debate, and that the idea(s) is supported by credible research. In this course you may be asked to engage with complex ideas and to demonstrate an understanding of the ideas. Understanding and engaging with an idea does not require you to believe it or to agree with it.

XVII. Course Policies: Technology and Media

Because this course focuses on teaching mathematics with technology and AI, students are expected to model **professional, ethical, and responsible technology use** at all times. Technology should support learning, collaboration, and reflection—not distract from it. If you have questions or concerns about technology use in the course, please reach out to the instructor early.

Canvas: This course will be offered via the University of South Florida's learning management system (LMS), **Canvas**. Canvas will serve as the primary hub for all course materials, announcements, assignments, discussions, and grades.

Students should expect to:

- Log into Canvas **multiple times per week**
- Review announcements regularly
- Submit all assignments through Canvas by the posted deadlines
- Participate in asynchronous discussions and activities as assigned

Due dates are clearly posted in Canvas and are designed to support steady engagement throughout the semester. Because much of the course is asynchronous, **late participation may limit your ability to engage meaningfully with peers** and may result in reduced credit, as outlined in assignment guidelines. If you need help learning how to perform various tasks related to Canvas, please consult the Canvas help guides or contact USF Information Technology at (813) 974-1222 or help@usf.edu

Recordings: In this class, software may be used to record live class lectures and discussions. As a student in this class, your participation in live class discussions will be recorded. These recordings will be made available only to students enrolled in the class, to assist those who cannot attend the live session or to serve as a resource for those who would like to review content that was presented. Students who prefer to participate via audio only will be allowed to disable their video camera so only audio will be captured. Please discuss this option with your instructor. ***Student recordings must follow USF Core Syllabus Policies (see link above). Please consult me if you have questions.***

Laptop Usage: The use of laptops and tablets is **encouraged** in this course, as many in-class activities involve technology exploration, task design, and collaborative work.

Students are expected to:

- Use devices for **course-related purposes**
- Remain engaged in class discussions and activities
- Avoid non-academic use (e.g., texting, browsing unrelated websites) during class sessions

With **permission of the instructor** students are permitted to use personal devices to record class sessions for personal study purposes, provided this use does not disrupt the learning environment or violate university policies.

WhatsApp, GroupMe, and Student-to-Student Communication: Students may choose to use private digital communication tools (e.g., WhatsApp, GroupMe, text messaging) to communicate with classmates. While faculty do not monitor or regulate these spaces, it is important to note that:

- **Academic integrity policies apply in all communication environments**
- Sharing or receiving unauthorized information related to assignments or assessments is prohibited
- Students are expected to report any academic integrity concerns to the instructor

Participation in unofficial communication groups is optional and not required for success in the course.

Phone Usage: Non-academic phone use (e.g., texting, social media browsing) during class sessions is discouraged. Students should silence notifications and remain fully present during discussions, collaborative work, and peer teaching activities. Phones may be used for **course-related purposes** when explicitly instructed (e.g., accessing materials, documenting work).

XVIII. Course Policies: Student Expectations

Health and Wellness: Your health is a priority at the University of South Florida. We encourage members of our community to look out for each other and to reach out for help if someone is in need. If you or someone you know is in distress, please make a referral at www.usf.edu/sos so that the Student Outreach & Support can contact and provide helpful resources to the student in distress. A 24-hour licensed mental healthcare professional, offered through the counseling center, is available by phone at 813-974-2831, option 3. Please remember that asking for help is a sign of strength. In case of emergency, please dial 9-1-1.

Title IX Policy: USF is committed to fostering a safe and respectful learning environment, free from sex discrimination and sexual harassment, in accordance with Title IX and [USF Policy 0-004](#). If a student shares an experience of sexual harassment, sexual assault, stalking, or relationship violence with a USF employee (including faculty), that employee will notify the Title IX Office. This allows the Title IX Office to send the student an email with information about support resources and options—if it is safe to do so. Students are not required to respond to this email. The Title IX Office is a private resource. Information is shared only on a need-to-know basis to provide students with support measures. To speak to a confidential resource, students may contact [USF Center for Victim Advocacy](#) at 813-974-5757. Confidential resources do not notify the Title IX Office unless the student requests it. For more information about Title IX, available resources, or to make a report, please visit www.usf.edu/title-ix.

Generative Artificial Intelligence (AI) Policy: Recent advancements in generative artificial intelligence (AI) tools—such as large language models that can produce human-like text—have important implications for teaching, learning, and academic integrity. Because AI plays a **central and intentional role** in this course, it is essential to establish clear expectations for its ethical, transparent, and responsible use. This course follows guidance provided by the University of South Florida regarding generative AI in teaching and learning (see: <https://www.usf.edu/provost/faculty-success/teaching-learning/guidance-generative-ai.aspx>).

Permitted Use of Generative AI

The use of generative AI tools is **permitted and, in some cases, encouraged** in this course when it supports learning objectives. Students may use AI tools for purposes such as:

- Brainstorming lesson ideas or assessment questions
- Generating draft instructional materials or feedback prompts
- Exploring alternative explanations or representations of mathematical ideas
- Supporting reflection and revision of their own work

AI tools should be used as **thinking partners or supports**, not as substitutes for students' own reasoning, decision-making, or professional judgment.

Student Responsibilities When Using AI

When using generative AI tools in this course, students are expected to:

- **Be transparent.** Clearly disclose when and how AI tools were used in completing an assignment, as directed in assignment guidelines.
- **Demonstrate understanding.** Show clear evidence of understanding the mathematics and pedagogical decisions involved. Submitting AI-generated content without meaningful revision, evaluation, or justification is not acceptable.
- **Critically evaluate AI outputs.** AI tools may produce inaccurate, incomplete, or biased information. Students are responsible for verifying the accuracy and appropriateness of all content submitted.
- **Use AI ethically and responsibly.** Students must consider issues related to data privacy and professional responsibility when using AI tools in educational contexts.
- **Follow assignment-specific guidelines.** Some assignments may restrict or structure AI use in particular ways. These expectations will be clearly stated and must be followed.

Prohibited Uses of Generative AI

The following uses of generative AI are **not permitted**:

- Representing AI-generated work as entirely one's own without disclosure
- Using AI to complete assignments in ways that bypass the learning goals of the course
- Submitting AI-generated content without review, revision, or professional judgment
- Using AI tools in ways explicitly prohibited for specific assignments

Academic Integrity and Consequences

Misuse of generative AI—including failure to disclose AI use, overreliance on AI-generated content, or submission of inaccurate or misleading work—will be treated as a violation of USF's Academic Integrity policies. Consequences may include grade penalties on individual assignments or additional academic sanctions, depending on the severity of the violation.

A Note on Professional Preparation

As future secondary mathematics teachers, students in this course are expected to develop **ethical, informed, and reflective approaches** to using AI in educational settings. This course provides a structured environment to explore AI's potential and limitations so that students are prepared to make responsible instructional decisions in their own classrooms. If you are ever unsure whether a particular use of AI is appropriate for an assignment, **ask before submitting**.

Professionalism, Classroom Culture, and Responsible Device Use: As future secondary mathematics teachers, students in this course are expected to demonstrate **professionalism, respect, and ethical conduct** in all course interactions—whether in person, online, or in written communication. Professionalism in this course is not limited to behavior; it also includes how we engage with one another as a learning community.

Establishing a Positive Classroom Culture

A positive classroom culture is essential for meaningful learning and professional growth. In this course, students are expected to:

- Treat classmates and the instructor with **respect, care, and professionalism**
- Engage in discussions with **curiosity, openness, and empathy**, especially when perspectives differ
- Listen actively and allow others to speak without interruption
- Contribute to a learning environment where questions, revisions, and uncertainty are welcomed
- Offer feedback that is **constructive, specific, and supportive**
- Recognize that learning to teach involves risk-taking and ongoing reflection

Disrespectful, disruptive, or dismissive behavior—whether verbal, written, or nonverbal—undermines the learning environment and is inconsistent with professional expectations for educators.

Responsible Use of Phones, Laptops, and Digital Devices

Because this course centers on teaching mathematics with technology, the use of laptops and tablets is **encouraged** for course-related activities. However, responsible device use is essential to maintaining a focused and respectful learning environment. Students are expected to:

- Use devices for **course-related purposes** during class sessions
- Silence notifications and avoid non-academic phone use (e.g., texting, social media browsing)
- Remain fully present and engaged during discussions, collaborative work, and peer teaching

Phones and other devices may be used for instructional purposes when explicitly directed by the instructor. Students may also use devices to record class sessions for personal study, in accordance with USF Core Syllabus Policies.

Professional Conduct and Instructor Discretion

Professional expectations apply in all course contexts, including:

- In-person class sessions
- Asynchronous online discussions
- Written assignments and reflections
- Email and Canvas communications

If a student's behavior or device use becomes disruptive or interferes with learning, the instructor may address the issue directly and, if necessary, ask the student to step out of the learning space temporarily. Repeated or serious concerns may be addressed in accordance with university policies.

A Professional Learning Community

This course is designed as a **professional learning community**. Students are expected to take shared responsibility for maintaining a respectful, inclusive, and intellectually

supportive environment. These expectations mirror those of secondary school classrooms and professional educational settings.

Turnitin: Some written assignments in this course may be submitted through Canvas with Turnitin enabled for originality review. Turnitin is used as a learning and feedback tool to support academic integrity and professional writing practices. All submissions will be electronic through Canvas unless otherwise noted.

Netiquette Guidelines:

- Act professionally in the way you communicate. Treat your instructors and peers with respect, the same way you would do in a face-to-face environment. Respect other people's ideas and be constructive when explaining your views about points you may not agree with.
- Be sensitive. Be respectful and sensitive when sharing your ideas and opinions. There will be people in your class with different linguistic backgrounds, political and religious beliefs or other general differences.
- Proofread and check spelling. Doing this before sending an email or posting a thread on a discussion board will allow you to make sure your message is clear and thoughtful. Avoid the use of all capital letters, it can be perceived as if you are shouting, and it is more difficult to read.
- Keep your communications focused and stay on topic. Complete your ideas before changing the subject. By keeping the message on focus you allow the readers to easily get your idea or answers they are looking for.
- Be clear with your message. Avoid using humor or sarcasm. Since people can't see your expressions or hear your tone of voice, meaning can be misinterpreted.

End of Semester Student Evaluations: All classes at USF make use of an online system for students to provide feedback to the University regarding the course. These surveys will be made available at the end of the semester, and the University will notify you by email when the response window opens. Your participation is highly encouraged and valued.

XIX. Learning Support and Campus Offices

Academic Accommodations

Students with disabilities are responsible for registering with Student Accessibility Services (SAS) in order to receive academic accommodations. For additional information about academic accommodations and resources, you can visit the SAS website.

[SAS website for the Tampa and Sarasota-Manatee campuses.](#)

[SAS website for the St. Pete campus.](#)

Academic Support Services

The USF Office of Student Success coordinates and promotes university-wide efforts to enhance undergraduate and graduate student success. For a comprehensive list of academic support services available to all USF students, please visit the [Office of Student Success website.](#)

Canvas Technical Support

If you have technical difficulties in Canvas, you can find access to the Canvas guides and video resources in the "Canvas Help" page on the homepage of your Canvas course. You can also contact the help desk by calling 813-974-1222 in Tampa or emailing [help@usf.edu.](mailto:help@usf.edu)

Center for Victim Advocacy

The [Center for Victim Advocacy](#) empowers survivors of crime, violence, or abuse by promoting the restoration of decision making, by advocating for their rights, and by offering support and resources. Contact information is available online.

Counseling Center

The Counseling Center promotes the wellbeing of the campus community by providing culturally sensitive counseling, consultation, prevention, and training that enhances student academic and personal success. Contact information is available online.

[Counseling Center website for the Tampa campus.](#)

[Counseling Center website for the St. Pete campus.](#)

[Counseling Center website for the Sarasota-Manatee campus.](#)

Tutoring

The Tutoring Hub offers free tutoring in several subjects to USF undergraduates. Appointments are recommended, but not required. For more information, email asctampa@usf.edu.

[Tutoring website for the Tampa campus.](#)

[Tutoring website for the St. Pete campus.](#)

[Tutoring website for the Sarasota-Manatee campus.](#)

Writing Studio

The Writing Studio is a free resource for USF undergraduate and graduate students. At the Writing Studio, a trained writing consultant will work individually with you, at any point in the writing process from brainstorming to editing. Appointments are recommended, but not required. For more information or to make an appointment, email: writingstudio@usf.edu.

[Writing studio website for the Tampa campus.](#)

[Writing studio website for the St. Pete campus.](#)

[Writing studio website for the Sarasota-Manatee campus.](#)

XX. Important Dates to Remember

All dates and assignments are tentative and can be changed at the discretion of the professor. For important USF dates, see the [Academic Calendar](#) at <http://www.usf.edu/registrar/calendars/>

Drop/Add Deadline:	January 16, 2026
Dr. Martin Luther King Jr. Holiday:	January 19, 2026
Mid-term Grading Opens:	February 16, 2026
Mid-term Grading Closes:	March 3, 2026
Withdrawal Deadline:	March 28, 2026
Final Examination Week:	May 2 – 7, 2026