



**ELEM 7332: Problem Solving and Mathematical  
Representations in the Elementary Classroom**  
*Fall 2022*

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**Office:** College of Education, 4128  
**Office Hours:** To schedule an appointment, please send me an e-mail and I will promptly work with you to set up a meeting via Zoom at a time that works with our schedules.  
**Google Room:** Open 24/7-Our course has a google room to which you will be added. It is expected you can post your questions/answers there throughout the semester, receive answers from your peers and myself quickly. If it is a personal matter, please email.

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**Course Description:** This course addresses the knowledge and skills needed to teach mathematics effectively to students in elementary school classroom settings. Candidates will examine their own knowledge of mathematics, learn how young students think and learn about mathematics, and develop a set of strategies and skills that will enable them to create an environment that helps children understand mathematical concepts.

**Prerequisite Courses:** The following prerequisite courses, skills, and/or knowledge are required to enroll in this course: ELEM 6130, SPED 6130

**Course Objectives:** Upon completion of this course, students will be able to:

1. Develop instruction and make instructional decisions based on NCTM's Mathematics Teaching Practices and research-based best practices in mathematics education.
2. Actively develop a greater awareness of one's own mathematical thinking and a personal vision for teaching mathematics.
3. Use appropriate teaching strategies, methods, and manipulative materials, including media and technology, that are best suited to teach mathematical concepts based on the needs of diverse learners, developmental appropriateness, and the progression of mathematics learning for a given concept for P-5 students.
4. Identify and develop instructional plans based on evidence of P-5 student thinking/understanding found in formative assessments such as observations, interviews, and student work samples.
5. Create instructional plans that emphasize the development of conceptual understanding prior to building procedural fluency, make mathematics learning meaningful for and relevant to P-5 students, and require reasoning and sense-making.

**Conceptual framework:** The Georgia Southern University Mission statement, one of the institution's hallmarks, is to build a culture of engagement that links theory with practice. The course objectives and candidate performance outcomes associated with this course address this critical element. In addition, the course objectives specifically address the four commitments that form the core of the College's conceptual framework:

1. *Commitment to the Knowledge and Dispositions of the Profession:* Candidates' knowledge and dispositions of the profession are addressed in each of the assignments in this course. Candidates demonstrate knowledge of mathematics content and pedagogy throughout the semester as they plan for instruction that reflects the focus, coherence, and rigor of Georgia's Mathematics: Standards of Excellence and the Georgia Early Learning & Development Standards (GELDS) for Mathematics. These are assessed using course assignments and the lesson plan rubric in the corresponding field experience in Internship I.

2. *Commitment to Diversity:* Diversity is central to instructional planning with emphasis on how the instruction should be modified to provide for individual differences in order to maximize both engagement and access to the mathematics content. Candidates explore individual student needs when assessing data to determine student strengths and areas for growth, as well as planning for instruction as they proactively develop strategies to meet the needs of diverse learners.

3. *Commitment to Technology:* Technology is emphasized as candidates explore various media materials appropriate for learning in the P-5 mathematics classroom. Each candidate is expected to incorporate appropriate technology in his/her lessons.

4. *Commitment to the Practice of Continuous Reflection and Assessment:* Reflection is a vital component to the course. Candidates utilize reflection in the planning, implementation, and assessment of mathematics learning experiences. By consideration of mathematics classroom practices from multiple perspectives, and by self-assessment in terms of planning, teaching performance and professional growth, candidates engage in overall goal setting and reflection on that growth both within this course and the corresponding field experience.

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### Important Dates:

- Start date: August 10, 2022
- End date: December 1, 2022

### Holidays

- September 6 - Labor Day Holiday
- November 22-26 - Thanksgiving Break

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### Text(s)/Materials:

There are no required texts for this course. All readings will be posted in Folio and the library guide.  
[Math - MAT ALG Grant - Library Guides at Georgia Southern University \(libguides.com\)](#)

### Highly Recommended Texts

- Carpenter, T.P., Fennema, E., Franke, M.L., Levi, L., & Empson, S. (2015). *Children's mathematics: Cognitively guided instruction*. Portsmouth, NH: Heinemann. ISBN: 9780325052878
- Boaler, J. (2016). *Mathematical mindsets: Unleashing students' potential through creative, inspiring messages and innovative teaching*. San Francisco, CA: Jossey-Bass.

### Recommended Texts for your Library (If you want to start building a professional library)

- Lempp, J. (2017). *Math workshop: Five steps to implementing guided math, learning stations, reflection, and more, grades K-6*. Sausalito, CA: Math Solutions
- Bill, V., & Sherin, M. G. (2019). *The Five Practices in Practice [Elementary]: Successfully Orchestrating Mathematics Discussions in Your Elementary Classroom*. Corwin Press
- Empson S., Levi L. (2014). *Extending Children's Mathematics: Fractions & Decimals: Innovations in Cognitively Guided Instruction* ISBN: 978-0325030531
- Parrish S. (2010) *Number Talks* ISBN: 9781935099659

- Boaler, J. (2015). *What's Math Got to Do with It?* (2nd ed.) New York, NY: Penguin Books.
- National Council of Teachers of Mathematics. (2014). *From principles to action: Ensuring mathematical success for all*. Reston, VA: The NCTM, Inc.

### Alignment with State & National Standards

#### **State Recommendations:** *TAPS Performance Standards for Teachers*

<b>Planning</b>
<b>1. Professional Knowledge:</b> <i>The teacher demonstrates an understanding of the curriculum, subject content, pedagogical knowledge, and the needs of students by providing relevant learning experiences.</i>
<b>2. Instructional Planning:</b> <i>The teacher plans using state and local school district curricula and standards, effective strategies, resources, and data to address the differentiated needs of all students.</i>
<b>Instructional Delivery</b>
<b>3. Instructional Strategies:</b> <i>The teacher promotes student learning by using research-based instructional strategies relevant to the content to engage students in active learning and to facilitate the students' acquisition of key knowledge and skills.</i>
<b>4. Differentiated Instruction:</b> <i>The teacher challenges and supports each student's learning by providing appropriate content and developing skills which address individual learning differences.</i>
<b>Assessment Of And For Learning</b>
<b>5. Assessment Strategies:</b> <i>The teacher systematically chooses a variety of diagnostic, formative, and summative assessment strategies and instruments that are valid and appropriate for the content and student population.</i>
<b>6. Assessment Uses:</b> <i>The teacher systematically gathers, analyzes, and uses relevant data to measure student progress, to inform instructional content and delivery methods, and to provide timely and constructive feedback to both students and parents.</i>
<b>Learning Environment</b>
<b>7. Positive Learning Environment:</b> <i>The teacher provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.</i>
<b>8. Academically Challenging Environment:</b> <i>The teacher creates a student-centered, academic environment in which teaching and learning occur at high levels and students are self-directed learners.</i>
<b>Professionalism and Communication</b>
<b>9. Professionalism:</b> <i>The teacher exhibits a commitment to professional ethics and the school's mission and participates in professional growth opportunities to support student learning, and contributes to the profession.</i>
<b>10. Communication:</b> <i>The teacher communicates effectively with students, parents or guardians, district and school personnel, and other stakeholders in ways that enhance student learning.</i>

#### Alignment with Standards for Preparing Teachers of Mathematics (AMTE, national recommendat.)

**TABLE 2.1. STANDARDS AND RELATED INDICATORS FOR WELL-PREPARED BEGINNING TEACHERS OF MATHEMATICS**

STANDARD	RELATED INDICATORS
<b>C.1. Mathematics Concepts, Practices, and Curriculum</b>	
Well-prepared beginning teachers of mathematics possess robust knowledge of mathematical and statistical concepts that underlie what they encounter in teaching. They engage in appropriate mathematical and statistical practices and support their students in doing the same. They can read, analyze, and discuss curriculum, assessment, and standards documents as well as students' mathematical productions.	C.1.1. Know Relevant Mathematical Content C.1.2. Demonstrate Mathematical Practices and Processes C.1.3. Exhibit Productive Mathematical Dispositions C.1.4. Analyze the Mathematical Content of Curriculum C.1.5. Analyze Mathematical Thinking C.1.6. Use Mathematical Tools and Technology
<b>C.2. Pedagogical Knowledge and Practices for Teaching Mathematics</b>	
Well-prepared beginning teachers of mathematics have foundations of pedagogical knowledge, effective and equitable mathematics teaching practices, and positive and productive dispositions toward teaching mathematics to support students' sense making, understanding, and reasoning.	C.2.1. Promote Equitable Teaching C.2.2. Plan for Effective Instruction C.2.3. Implement Effective Instruction C.2.4. Analyze Teaching Practice C.2.5. Enhance Teaching Through Collaboration With Colleagues, Families, and Community Members

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### C.3. Students as Learners of Mathematics

Well-prepared beginning teachers of mathematics have foundational understandings of students' mathematical knowledge, skills, and dispositions. They also know how these understandings can contribute to effective teaching and are committed to expanding and deepening their knowledge of students as learners of mathematics.

- C.3.1. Anticipate and Attend to Students' Thinking About Mathematics Content
- C.3.2. Understand and Recognize Students' Engagement in Mathematical Practices
- C.3.3. Anticipate and Attend to Students' Mathematical Dispositions

### C.4. Social Contexts of Mathematics Teaching and Learning

Well-prepared beginning teachers of mathematics realize that the social, historical, and institutional contexts of mathematics affect teaching and learning and know about and are committed to their critical roles as advocates for each and every student.

- C.4.1. Provide Access and Advancement
- C.4.2. Cultivate Positive Mathematical Identities
- C.4.3. Draw on Students' Mathematical Strengths
- C.4.4. Understand Power and Privilege in the History of Mathematics Education
- C.4.5. Enact Ethical Practice for Advocacy

## Online Learning Commitment Expectations

In order to ensure that you are successful in this course, please carefully manage and regulate the time you spend on the course. Online learning requires you to take more responsibility in the learning process. Consequently, you must be motivated and responsible for keeping up with understanding what is expected and stay on task with due dates for readings, assignments, and other activities. **You should log into the course at least twice a week to check for messages and other important information.** Please do not wait until the last minute to do work that requires you to submit by a due date.

You are held responsible for all information presented and/or discussed each week and it is your responsibility to ask questions if any material is unclear.

We want you to take appropriate precautions for your health. If you become ill during the semester, please contact me immediately. We will work through what you will need to do, to either continue the online schedule or make up work that might have been missed during the illness. If you have an illness that would result in an extended absence, you will need to contact the Dean of Students office. In the event of serious illness, injury, or extenuating circumstances, the DOS office will notify professors at your request.

If you need to self-report either a confirmed or suspected positive COVID-19 diagnosis, have received self-quarantine requirements, or have symptoms with pending test results, please complete the CARES Center [COVID-19 self-reporting form](#) (through the [MyGeorgiaSouthern portal](#) under "COVID-19 Information & Resources"). You may also reach the CARES Center by using the [MyGS mobile app](#), calling 912-478-CARE (M-F 8am-5pm), or emailing [covidsupport@georgiasouthern.edu](mailto:covidsupport@georgiasouthern.edu). The CARES Center should not be used for medical advice. If you need medical advice, you need to call your health provider or 911.

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### Assignment Guidelines:

All written assignments must be turned in according to the due date posted. Technological difficulties do NOT constitute a legitimate excuse for late work nor does not having enough time to complete the assignment.

- **Submission of Assignments:** All assignments must be computer generated in Word using 12- point

standard font, 1-inch margins, and black ink, unless specifically directed otherwise. When submitting assignments, be sure that you follow all directions. Failing to follow directions when submitting assignments will impact your grade; refer to the Professionalism section below.

- **Revising & Proofreading:** Professional presentation of your work is expected. Assignments must be submitted according to the directions noted in Folio including formatting and conventions, so please follow all directions carefully, ask questions if you are unsure about expectations, and proofread your assignments before submitting them. Work submitted with conventions errors (e.g., spelling, grammar, punctuation) will impact your grade; refer to the Professionalism section below.
- **Plagiarism: All work done in this course must be the student's own.** All sources used to complete any assignment MUST be properly credited, including those that you may use as a basis for an idea you develop or activities that you modify or adapt. American Psychological Association (APA) 7<sup>th</sup> edition citation format must be followed for references/materials. See the [OWL at Purdue](#) for examples about how to do so. Any deviation from this expectation will be dealt with according to procedures in the [GSU Student Conduct Code](#). **Per the code of conduct, penalties for academic dishonesty may include consequences including, but not limited to, failure of the course, suspension, expulsion, and transcript annotations.**

### Late Work

All work should be submitted by the assigned due date. Late work will be accepted without penalty only if I have granted an extension due to **extenuating circumstances** prior to the due date. If an extension was not granted, late points will be deducted per day it is late. No late work will be accepted 2 weeks after the assigned due date.

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## Portfolio Grading System

You will have three portfolios that will be provided a grade, the professional dispositions, learning portfolio, and the knowledge of teaching portfolio.

Portfolio	Items Included	Notes on Grading
Professional Dispositions <b>15%</b>  <i>(Assessed mid-term &amp; final)</i>	Professional Individual and Collaborative Engagement	Self-assessment completed mid-semester. Feedback returned based on rubric mid-semester. Rubric graded at the very end of the semester
Learning Portfolio <b>60%</b> (Formative Assessment, available for revise/resubmit)  <i>(Assessed throughout the course)</i>	Math Journal <a href="#">via Google Docs</a> Or any template you can find. <ul style="list-style-type: none"> <li>• Reflections</li> <li>• Problem sets</li> <li>• Anything you want to save or write</li> </ul> Learning Pod Tasks & Discussions	May revise/resubmit within 2 weeks of when feedback is posted  Highlight changes on any revisions submitted
Knowledge for Teaching <b>25%</b> (Summative Assessment)  <i>(Assessed at the end of the semester)</i>	Final Project  Final Exam	Assignments ineligible for revise/resubmit

**Professional Dispositions (15% of your final grade)** – Teaching is a professional occupation. As such, you will be held to a high code of conduct. As a developing professional, it is important that you take responsibility for your own learning. Future employers will care more about your dispositions than other categories. This is your opportunity to develop in these areas and prove your strong dispositions. You are expected to be an active participant and engage in the online course by completing the reading, learning through the assigned instructional content, and completing all assignments. The rubric described below will be used to describe the expectations of engagement as an individual and as a peer. At the middle of the semester, I will have you complete a self-assessment and I will also return a copy of the rubric as feedback as to your progress. You are more than welcome to meet with me at any time during the semester to check in and have a conversation with me about your dispositions in the course. A numerical grade will be assigned to ratings earned on the dispositions document at the end of the semester. Thus, you can also use this rubric as a reflective tool for yourself throughout the semester if you want to estimate where you stand.

**Learning Portfolio (Formative assessments) (60% of your final grade)** – Learning is a complex endeavor that is not bound by time. It is expected, therefore, that you will make mistakes along the way. In order to create a safe space for these mistakes, formative assignments are those in which you are allowed opportunities to revise and resubmit completed work in order to reach the learning goals/criteria set of each assignment. May revise/resubmit within 2 weeks of when feedback is posted. When submitting revisions, please highlight changes.

**Knowledge for Teaching Portfolio (Summative assessments): (25% of your final grade)** – Although learning is rarely linear, as noted above, it is nevertheless expected that you demonstrate mastery of course material and goals over the semester. Thus, 35% of your grade will be reserved for summative assessments. **You will not be allowed to revise and resubmit any summative assessments.**

### Further Clarification of Assignments

The following are **brief** descriptions for each course requirement. Specific directions, rubrics (if applicable), and due dates will be available in Folio as the semester progresses. Also included are the related state and national standards to provide further purpose for each aspect of the three portfolios.

#### **Professional Dispositions: 15%**

Component of Portfolio	National Standards (AMTE)	State Standards (GA Teachers)
Professional Individual Engagement in the Course	C.1.3. Exhibit Productive Mathematical Dispositions	Standard 1-Professional Knowledge Standard 9-Professionalism
Professional Collaborative Engagement in Learning Pods & Peer Discussions	C.2.5. Enhance Teaching Through Collaboration With Colleagues, Families, and Community Members	Standard 10- Communication

**MAT Program: Professionalism Statement:** *Candidates in the Elementary Education MAT program are expected to demonstrate professional dispositions needed for teaching including: (1) Professional Conduct, (2) Reflective and Responsive to Feedback, (3) Responsibility, Engagement, and Cooperation, and (4) Ethical and Equitable Behavior. In addition to the program expectations elaborated below, instructor expectations for each class will be detailed in the course syllabus. Candidates and faculty will abide by the contractual language of the syllabus, including consideration of extenuating circumstances on a case by case basis. Professional communication is expected from every candidate and includes (but is not limited*



to), *proactive and respectful communication across formats*. *Formats include: class discussion boards, emails, phone calls, online chats, video conferencing, and via social media.*

**1. Professional Individual Engagement in the Course:** Participation involves your active engagement in class discussions (there will be 3 discussions with your learning pod and a collaboration on the final project and optional collaborative assignments in a *professional, respectful, and positive* manner, even online. Please monitor your participation, contributing but not dominating the discussion. Remember we learn from others, and you may be helpful by encouraging the participation of fellow students. You are expected to:

- Participate *actively* each week;
- Act professionally and respectfully to others;
- Complete online modules in a timely manner/submit assignments in a timely manner
- Engage with your peers on a critical but respectful level including engaging beyond surface level contributions and demonstrate your understanding of the reading and instructional content within discussions).

Please note that I consider you adult learners and therefore you are responsible for your actions and behaviors as a contributing member of this learning community. You will be evaluated on your overall dispositions in the course, which includes your level of responsibility, punctuality, the respect that you show your professor and your peers, how you engage in class activities, participate in discussions, collaborate on mathematics problem solving activities and preparation for class including readings and other tasks as assigned. See rubric below for more details.

**2. Professional Collaborative Engagement in Learning Pods:** At the start of the course, you will be placed into groups of approximately 3-4 students based on grade levels and teachers of record/non-teachers of record as well as aspirations for future work, interests and strengths. If at any time, you are having difficulty with your group or connectivity concerns, please contact me immediately and we will find you a learning pod that will work for you. Throughout the semester you will be given learning pod tasks that are to be completed collaboratively with your groups (e.g., via Zoom). These learning pod tasks will be included in the module course schedule and labeled as such. You should plan on setting a timeline for each task and meet with your group via google meets/Zoom at least once. It is the expectation that each member of the learning pod will be a contributing member to each task in its entirety. “Dividing up the work” for the task limits your learning experience. It is your responsibility as a member of the learning pod to do your best to find a time that works for all members. If there is a scheduling issue, please contact Dr. Smithey ASAP.

**3. Discussions Boards:** This semester, after each task, you will engage with your learning pod on the discussion board. Each discussion will require you to apply your learning from the task and the course thus far. from thus far in the course—specifically the module. Your peer discussions will be considered in the assessment of your professional dispositions mid and end of the semester. In thinking about the content of the discussion, consider:

- *Be inquisitive:* Take an inquisitive stance on what is discussed—share your insights, experiences, and interpretations
- *Use evidence:* Ground statements in evidence and build off each other’s ideas
- *Be responsible:* Assume positive intentions and take responsibility for impact
- *Listen:* Hear and consider all voices and perspectives—encourage voices not yet heard or seen
- *Be respectful:* Value and honor ideas that are different from your own

The following Disposition Rubric will be used this semester:

	<b>Unacceptable (1)</b>	<b>Developing (2)</b>	<b>Proficient (3)</b>
<b>Professional Conduct</b> a) communicates in a respectful and professional manner with instructors, colleagues and other MAT personnel b) Uses all technology, including social networking platforms, appropriately and responsibly, c) seeks to establish and maintain fair, impartial and appropriate professional relationships with instructors, colleagues and other MAT personnel, d) Demonstrates respect for an interest in profession of teaching	Little to no evidence	Some (but not consistent) evidence	Solid and consistent evidence
<b>Reflective &amp; Receptive to Feedback</b> a) Engages in behaviors that demonstrate the motivation to improve b) reflects on personal attitudes, professional beliefs, professional practice, and actual or future student outcomes. c) listens to and using constructive criticism from instructors, colleagues, and other MAT personnel to grow professionally d) responds to and is receptive to constructive feedback.	Little to no evidence	Some (but not consistent) evidence	Solid and consistent evidence
<b>Responsibility &amp; Cooperation</b> a) Communicates and interacts with the professor and peers in a respectful and courteous way, b) Contributes to group assignments with effort and in a timely manner	Little to no evidence	Some (but not consistent) evidence	Solid and consistent evidence
<b>Engagement &amp; Responsibility</b> a) Submits work of high quality and effort is shown in all assignments, b) Submits assignments on time, c) Reads and engages with all course content including readings and other tasks, d) Engages and participates in class activities and discussions as a positive contributor to the learning of the class	Little to no evidence	Some (but not consistent) evidence	Solid and consistent evidence
<b>Ethical and Equitable Behavior</b> a) Demonstrates appreciation of multiple perspectives, b) treats instructors, colleagues and other MAT personnel equitably and with respect, c) maintains high standards of personal character and conduct towards all stakeholders	Little to no evidence	Some (but not consistent) evidence	Solid and consistent evidence

### **Learning Portfolio: 60%**

<b>Component of Portfolio</b>	<b>National Standards (AMTE)</b>	<b>State Standards (GA Teachers)</b>
Reflections	Potentially all standards	Potentially all standards
Instructional Content in Math Journal		
Learning Pod Tasks & Discussions	C.1.1. Know Relevant Mathematical Content C.1.3. Exhibit Productive Mathematical Dispositions C.1.5. Analyze Mathematical Thinking C.1.6. Use Mathematical Tools and Technology C.2.1. Promote Equitable Teaching C.2.5. Enhance Teaching Through Collaboration With Colleagues, Families, and Community Members C.4.2. Cultivate Positive Mathematical Identities	Standard 1: Professional Knowledge Standard 2: Instructional Planning Standard 3: Instructional Strategies Standard 4: Differentiated Instruction Standard 6: Assessment Uses Standard 9: Professionalism Standard 10: Communication
Problem Sets	C.1.1. Know Relevant Mathematical Content C.3.1. Anticipate and Attend to Students' Thinking About Mathematics Content C.4.3. Draw on Students' Mathematical Strengths	Standard 1: Professional Knowledge Standard 2: Instructional Planning



## **Math Journal: 30%**

**Choose a template:** [Free Digital Notebooks for Google Slides and PowerPoint - SlidesMania](#)

Share with Dr. Smithey on drive.

This semester, you will build a math journal that demonstrates your knowledge and understanding of teaching children mathematics using a free journal template online. Your personal portfolio will be comprised of 5 (or more) sections. 1) Readings, 2) Reflections 3) Pod Tasks, 4) Problem Sets, and 5) Resources. If there are other sections you would like to include, feel free—as the math journal is yours!

Within the modules when an assignment is due, you will submit a shared link to your personal learning portfolio with me via dropbox. When you decide to embed a google doc of the assignment within your journal, you should also include the shared link for this document in dropbox as well. PLEASE CHECK share permissions to ensure I have access.

A few tips as you create your math journal this semester:

- I will embed a checklist of readings and instructional content for each module in your math journal at the front. I will update it each time I view the math journal (approx. every other module).
- If journaling, I would keep it to about 100 words in a text box if using 12pt font so you and I can read it. For instance, a journal entry might be 3 pages OR you could insert the first 100 words in the text box and then link to a google doc if you would rather.
- You can insert new pages to your journal by selecting “insert”, new slide.
- You can create hyperlinks to different slides (like your tabs/dividers)
- If you want to save any resources or screenshots from the instructional content, you can include those in your math journal.

Grading of Math Journal: Overall, the math journal will be graded according to a checklist of readings and instructional content based on effort and completion. At the end of the semester, the checklist total will be entered into the gradebook.

**Problem-Sets: 10%** Three problem sets will consist of a set of math problems aligned with the content learned in the module(s). You will solve as students and/or be asked to provide a detailed explanation using what you have learned from the instruction within the modules thus far. These will be examined for completeness as opposed to correctness. For each problem set, please select one you would like specific feedback on and an answer key will be provided with sample solutions/explanations after all have been graded.

**Journal Entries: 10%** Teaching is a learning profession. What I mean by that is the best teachers are the ones who continually reflect on their practices and instruction and then use these reflections to improve their lessons, their interactions with students, their explanations, etc. Thus, this semester you will have space to process your learning. The intent of the reflection/reflexive journal is for you to both actively reflect on and engage with course readings/activities and have a space to make sense of ideas and consider their implications in terms of your future classroom. Your math journal will be assessed based on completion, effort, the depth of your reflections—the degree to which you are reflexive, and on your ability to showcase your learning from class. In other words, your journal should contain significant reflexive and reflective content that goes beyond simple summaries of course activities; b) the length of the journal entries, which should be approximately 1-page each double spaced if it were in a google doc or at least 400 words; and c) the degree to which it is clear that significant learning has occurred as a result of class activities, grounded of course in readings.

*Content of Journal*-Journal entries should be both reflective and reflexive on topics including: course activities, readings, your general thoughts, feelings about what we have been learning, and/or beliefs about yourself and subject given your learning for the week, etc. Please also note key implications you have learned for teaching mathematics and questions you have. Keep in mind that while journal entries will have an academic nature and that you must fully answer the topics presented below, you are also allowed to reflect for yourself. In the past, many students have also used the journal to reflect on their stresses for the week, frustrations, etc. Teaching is about successfully navigating myriad cognitive and affective factors, so please feel free to go beyond simple academic reflections but do not exclude the academic nature of the entries.

### Journal Entry #1 –

- a) For this journal you will be watching the first 40 minutes of [Gutiérrez' presentation](#). You will also be provided with a graphic organizer which should be completed and linked within your journal entry.
- b) As you enter the teaching profession, it is important that you begin thinking about and developing your teaching philosophy—built upon your previous and ongoing experiences. For this journal entry, you will be considering your identity as a teacher and the ways different pieces of your identity intersects with the teaching and learning of your students—specifically in mathematics. Further, you will capture what you believe about teaching mathematics and what your vision for your ideal elementary mathematics classroom. Use the questions below to guide your journal entry:

- *What kinds of dispositions do I hold towards teaching, students, mathematics, and the profession?*
- *What key message(s) do I want to communicate to my students and in what way(s) might I communicate those messages?*
- *What characteristics and experiences determine a student's and a teacher's success?*
- *How do I (how could I) listen to my students, particularly students who might have little voice in school?*
- *How do my (how could my) lessons utilize home language to support academic development for English learners?*
- *How do my (how could my) lessons help students connect mathematics with relevant/authentic situations in their lives?*
- *How do I (how could I) create opportunities for students to contribute regularly, particularly students with different home languages and/or mathematical backgrounds?*

### Journal Entry #2 – This journal has two parts:

- Watch the following four videos.
  - [Mistakes](#)
  - [Mindset](#)
  - [“Math class needs a Makeover”](#)
  - [“The Importance of ELL Strategies”](#)
- For this journal, please reflect on your learning from module 1-3 as a whole as well as keeping in mind the 4 videos linked above. Specifically, the journal should focus on issues of equity and how students should be positioned (viewed by teachers and other students) in mathematics classrooms. Please be as specific as possible. Remember to be both reflective (what does this learning mean to you) as well as reflexive (what are the implications of your learning for your future classroom)? It is essential the journal entry is connected to a variety of course readings.

**Journal Entry #3:**

- For this journal, please reflect on your learning from module 4 & 6 as a whole. Specifically, the journal should focus on the role that children’s mathematical thinking should play in the mathematics classroom and/or whole numbers. In particular, now that you have had some time in class and some time in your internship, connect the two together. Please be as specific as possible. Remember to be both reflective (what does this learning mean to you) as well as reflexive (what are the implications of your learning for your future classroom)? It is essential the journal entry is connected to a variety of course readings.

**Learning Pod Tasks & Discussion Board Debrief: 10%**

In the field of teaching, there are many ways to continually grow your expertise—including teaching mathematics. Even when you become a teacher, the learning does not stop! The intent of the learning pod tasks and discussion boards is for you to explore a particular idea in mathematics and then discuss as a class. The task will be completed as a learning pod but you will then engage in discussion via discussion board. In your initial debrief post, attach your completed learning pod task you completed as a group but also your individual response. Afterwards, reply to two peers.

- Complete Tasks (Group):**. 1) Base Ten Exploration, 2) Algorithm Investigation, 3) Number Sense Routine
- Discussion Board (Individual):** Respond to prompt (attach completed task), two replies to peers

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**Knowledge for Teaching Portfolio-25%**

Component of Portfolio	National Standards (AMTE)	State Standards (GA Teachers)
Final Project & Final Exam	Potentially all	Potentially all

**Final Project (15%):** For this final project, you will use the math knowledge for teaching you have learned throughout the semester. Within the course, you will have an overview of an instructional model called guided math. Essentially, a teacher is working with a small group of students and the other students in the class are engaged in meaningful math work in groups, pairs, or independently. Working with a group (in which I will assign based on grade level interest), you will design a set of math stations that includes a variety of high quality math tasks (including the materials)—aligned with the curriculum standards and effective teaching practices. You may find existing math stations as long as you modify or adapt them based on what has been learned in the course. Along with the math stations, you will need to “unpack the math station” to explain the mathematics behind it and some possible student solutions. Finally, each individual will write a short paper about the project using a writing guide. Overall, this project will serve as your summative assessment and the rubric will consist of: Unpacking the mathematics, cognitive demand, depth of knowledge and student understanding, planned discussions, and engagement in peer feedback.

**Final Exam (10%)**

During finals, you will have a few days to complete a large problem-set that includes the type of math concepts we have been learning throughout the semester. Time to show how strong your own math content knowledge is! To prepare, review the problem sets, feedback received, and content-oriented instructional content.

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## Grading Policy

A: 93-100  
B: 84-92.99  
C: 76-83.99  
D: 70-75.99  
F: 69.99 or below

**\*\*Grades will not be rounded. If you need to discuss grading concerns, please make an appointment to have a zoom meeting.**

### Student Responsibilities:

- Make sure that you are aware of upcoming assignments and organize your time accordingly.
- Submit all assignments per the required directions, in terms of format and due dates.
- Check your GSU email and Folio daily.
- Use GSU email to correspond with Dr. Smithey outside of class.
- Be courteous to your professor and your peers.
- Behave in our class, as you would expect your students to do in your own classroom.
- Silence your phone and put it aside/away so that it is not a distraction. I may ask that you use mobile devices for some activities, but make sure that you are only using your phone, tablet, or laptop for the specified purpose. If you have a specific circumstance requiring you to be available by phone, please notify me at the beginning of class.
- All work completed out of class is required to be computer generated and professionally presented.

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## University Supports

It is common for college students to experience challenges that may interfere with academic success such as academic stress, sleep problems, juggling responsibilities, life events, relationship concerns, or feelings of anxiety, hopelessness, or depression. If you or a friend is struggling, we strongly encourage you to seek support. Helpful, effective resources are available on campus at no additional cost.

- Visit the [Counseling Center website](#) for information about the broad range of confidential on-campus mental health services, online health assessments, hours, and additional information.
- Call the Counseling Center at (912)478-5541 (Statesboro) or (912-344-2529 (Armstrong/Liberty) if interested in scheduling an appointment with a mental health professional. After-hours crisis support is also available through the Counseling Center phone numbers.

Georgia Southern University is committed to providing reasonable accommodations to students with documented disabilities as required under federal law. Disabilities may include ADD or AD/HD, autism spectrum disorders, brain injuries, chronic medical conditions, communication disorders, hearing impairment, learning disabilities, mobility impairment, psychological disorders and visual impairment. The purpose of disability accommodation is to provide equal access to the academic material and equal access to demonstrate mastery of the material. If you have a disability and need accommodations, please contact the Student Accessibility Resource Center (SARC). You will need to meet with a SARC staff member who can help you gather documentation of your disability or refer you to an appropriate resource for assessment. Once documentation of the disability is approved, SARC staff will provide you with an accommodation letter detailing the approved accommodations which you should present to me so we can discuss and implement your accommodations. Disability accommodations work best starting at the beginning of the semester, but can be approved and started at any point in the semester. Accommodations start at the time the

accommodation letter is presented to faculty within reasonable timelines; accommodations are not given retroactively. SARC on the Statesboro campus is located on the second floor of Cone Hall and the phone number is (912) 478-1566. SARC for Savannah and Liberty campuses is located on the second floor of Memorial College Center and the phone number is (912) 344-2572.

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**Statement Regarding Title IX**

Reporting

Georgia Southern University does not discriminate on the basis of *sex, race, color, sexual orientation, gender identity or expression, national origin, religion, age, veteran status, political affiliation, or disability*. While students are encouraged to share with faculty any issues or concerns they may be having, please be aware there are reporting requirements which are a part of the job requirements at Georgia Southern University. For example, if you disclose an issue of sexual misconduct, the information will be kept as private as possible but faculty and staff are required to bring it to the attention of the institution’s Title IX Coordinator/Director of Equal Opportunity and Title IX. Additionally, you can report incidents or complaints to the individuals listed below.

Pregnant and Parenting Students

Georgia Southern University does not discriminate on the basis of legally-protected status, including pregnancy, childbirth, false pregnancy, termination of pregnancy, or recovery therefrom. Students should work with their faculty as soon as possible to arrange appropriate accommodations based on this status. Delays in making a request may impact available accommodations. Students will be treated consistently with other similarly situated students. Absences from class may be excused for as long as medically necessary. Students will be allowed to return to the same academic status following any accommodation that includes leave. Medical certification may be requested from the student by the Office of Equal Opportunity and Title IX. Both students and faculty are able to consult with the Title IX Coordinator regarding any questions or issues that arise.

**Places to Report an Incident**

**Director of Equal Opportunity & Title IX/Title IX Coordinator**

Amber J. Culpepper, J.D.  
aculpepper@georgiasouthern.edu  
Statesboro: Rosenwald Building, Room 1066  
Armstrong/Liberty: Victor Hall Room 243  
(912) 478-5136  
Reporting Form:  
<http://president.georgiasouthern.edu/eo-titleix/>

Dean of Students Office  
Statesboro: Russell Union Room  
2022 (912) 478-3326

deanofstudents@georgiasouthern.edu  
Armstrong/Liberty: Student Union D206  
(912) 344-2514  
armdeanofstudents@georgiasouthern.edu  
libdeanofstudents@georgiasouthern.edu

University Police  
Statesboro: 1220 Forest Drive  
(912) 478-5234/911  
Armstrong: 11935 Abercorn Street  
(912) 344-3333/911  
Liberty: 175 West Memorial Drive  
(912) 877-1906/911

## Confidential Reporting Options

**University Counseling Center**  
Statesboro: Building 435, Forest Drive (912) 478-5541  
Armstrong/Liberty: Compass Point  
(912) 344-2529

University Health Services

Statesboro: 984 Plant Drive; (912) 478-5641

Armstrong/Liberty: Compass Point, 7000 Bldg (912) 961-5726  
health@georgiasouthern.edu

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## Research

As part of my ongoing development as an educator, and as a member of the larger mathematics education research community, I am passionate about understanding and supporting your mathematical thinking. I may ask for your consent to use your coursework as data to help me improve my teaching and to communicate what I'm learning with colleagues in Georgia and national or international colleagues. You are never required to participate. You will not be penalized in any way if you choose to not participate. That is, there is no impact on your grade or academic standing whether you participate or not. I will not know who consents until after grades are submitted at the end of the semester. If you consent but change your mind, let me know after the semester ends and I'll update my records. **Once again, I will request your permission prior to using your data.**

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## Disclaimers

1. The professor reserves the right to make individual exemptions, exceptions, or modifications of any of these policies based on the unique circumstances or extenuating events faced by students. Such modifications are on a case-by-case basis.
2. This syllabus is tentative, and the professor reserves the right to change any part of this syllabus at any time during the semester based on the needs of the class. Students will be adequately notified whenever changes occur.