



**ELEM 6440: MAT Elementary Math Methods-Smithey**  
*Spring 2022*

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**Office Hours:** Office hours are by appointment, please email and schedule a time. You can also view my google calendar to see when I have an open time.  
**Google Room:** Our course has a google room/google chat to which you will be added. You can post your questions/answers there throughout the semester and during class—unless it is a personal matter.

*The best way to reach me outside of office hours is by E-mail. I will typically respond to email within 24 hours although my response time on weekends or when I am out of town may be a bit longer.*

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**Course Description:** Provides an overview of the mathematics content and methods used to teach elementary school students. Focuses on a variety of topics, including number and operations, algebraic reasoning, geometry and measurement and data. Emphasis is placed on how such concepts can be effectively taught and assessed in the elementary classroom.

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

1. Solve mathematics problems in a variety of ways that enables the teacher candidate to develop effective instructional practices that are developmentally appropriate and meet the needs of diverse learners.
2. Demonstrate how mathematical knowledge can be used to design appropriate mathematical tasks by developing an understanding of students' mathematical thinking, reasoning and using such knowledge to design activities focused on facilitating conceptual understanding and procedural fluency.
3. Identify and develop instructional plans based on evidence of student thinking/understanding found in formative assessments such as observations, interviews, and student work samples.
4. 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.
5. Analyze current issues affecting mathematics education and use state and national guidelines (NCTM Principles to Actions, Georgia's Mathematics Standards of Excellence) to develop a comprehensive knowledge of elementary school curricula
6. Understand that prior to building procedural fluency, teachers must make mathematics learning meaningful for and relevant to P-5 students as they develop reasoning and sense-making skills
7. Think critically about the equitable and inequitable practices facing teachers and children in education.

**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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### Text(s)/Materials:

There are no required texts for the course. However, we are piloting our MAT program library guide with you this semester. You can access readings through the library guide as well as the course schedule.

Library Guide: [Math - MAT ALG Grant - Library Guides at Georgia Southern University \(libguides.com\)](https://libguides.gsu.edu/math/mat-alg-grant/)

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### 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.

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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.

## Face Coverings

*Although this is an online course, I thought I would include the following information in the event you come to campus to complete assignments or engage in the modules.*

Georgia Southern, along with other University System of Georgia (USG) institutions, requires all faculty, staff, students, and visitors to wear an appropriate face covering while inside campus facilities/buildings where six feet social distancing may not always be possible; this includes classroom spaces. Use of face coverings will be in addition to, rather than a substitute for, social distancing. **Anyone not using a face covering when required will be asked to wear one or must leave the area. Repeated refusal to comply with the requirement may result in discipline through the Student Code of Conduct.** However, reasonable accommodations may be made for those who are unable to wear a face covering for documented health reasons."

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## Alignment with State & National Standards

State Recommendations: *TAPS Performance Standards for Teachers*

Planning
1. <b>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>
2. <b>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>
Instructional Delivery
3. <b>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>
4. <b>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>
Assessment Of And For Learning
5. <b>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>
6. <b>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>
Learning Environment
7. <b>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>
8. <b>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>

## Professionalism and Communication

**9. Professionalism:** *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.*

**10. Communication:** *The teacher communicates effectively with students, parents or guardians, district and school personnel, and other stakeholders in ways that enhance student learning.*

**Alignment with Standards for Preparing Teachers of Mathematics (National Recommendations):** [Link to the Standards](#)

**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.	<ul style="list-style-type: none"><li>C.1.1. Know Relevant Mathematical Content</li><li>C.1.2. Demonstrate Mathematical Practices and Processes</li><li>C.1.3. Exhibit Productive Mathematical Dispositions</li><li>C.1.4. Analyze the Mathematical Content of Curriculum</li><li>C.1.5. Analyze Mathematical Thinking</li><li>C.1.6. Use Mathematical Tools and Technology</li></ul>
<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.	<ul style="list-style-type: none"><li>C.2.1. Promote Equitable Teaching</li><li>C.2.2. Plan for Effective Instruction</li><li>C.2.3. Implement Effective Instruction</li><li>C.2.4. Analyze Teaching Practice</li><li>C.2.5. Enhance Teaching Through Collaboration With Colleagues, Families, and Community Members</li></ul>
<b>C.3. Students as Learners of Mathematics</b>	
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.	<ul style="list-style-type: none"><li>C.3.1. Anticipate and Attend to Students' Thinking About Mathematics Content</li><li>C.3.2. Understand and Recognize Students' Engagement in Mathematical Practices</li><li>C.3.3. Anticipate and Attend to Students' Mathematical Dispositions</li></ul>
<b>C.4. Social Contexts of Mathematics Teaching and Learning</b>	
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.	<ul style="list-style-type: none"><li>C.4.1. Provide Access and Advancement</li><li>C.4.2. Cultivate Positive Mathematical Identities</li><li>C.4.3. Draw on Students' Mathematical Strengths</li><li>C.4.4. Understand Power and Privilege in the History of Mathematics Education</li><li>C.4.5. Enact Ethical Practice for Advocacy</li></ul>

## Assignment Guidelines

All written assignments must be turned in according to the due date posted unless *previously* arranged with the professor. 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. Do NOT submit your work as PDFs or a series of image files. When submitting assignments, be sure that you follow all directions. Failing to follow directions when submitting assignments will impact your grade.
  - **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.
  - **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](#).
  - **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

As I continue my journey toward equitable grading practices, I have made some adjustments based on my own learning, student feedback, and how folio is set up to work. Thus, grading and feedback does look different from last semester with some similarities. There are still three portfolios (dispositions, formative, and summative). The change this semester in terms of grading is instead of using 0, 1, and 2s—I will use traditional numeric grades. However, I will ensure the rubrics used reflect a grading scale that is more equitable than grading 0-100. Read more here: [Is Our Grading System Fair? | Edutopia](#). I also will ensure you are given space to revise and resubmit anything you would like to that falls under the learning portfolio (formative assessment).

**Professional Dispositions (20% 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 even as an online student, read and complete all assignments. These components will come from instructional content within each model and the work within your learning pods. At the middle of the semester, we will have a conference to check in with one another and discuss your progress in the course 1:1. 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.

**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 if you so choose (except for your math journal or other platform of showcasing your work). Each assignment will be accompanied by a 1-column rubric and activities for learning will be outlined in the modules. In other words, a list of criterion will be provided as to what needs to be included to meet your learning goals and activities that should be completed will be provided to you with any necessary directions. Once grades and feedback are received, you have the option to revise/resubmit if you so choose. However, any revisions must be completed within two weeks from when grades/feedback are posted and revisions should be highlighted or in a different color text.

**Knowledge for Teaching Portfolio (Summative Assessments): (20% 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, 20% of your grade will be reserved for summative assessments. **You will not be allowed to revise and resubmit any summative assessments.**

Professional Dispositions <i>(Assessed end of semester)</i>	20%	Professional Individual Engagement in the Course Professional Collaborative Engagement in Learning Pods & Peer discussions
Learning Portfolio (Formative Assessment)	60%	Weekly Instructional Content, YuJa Quizzes, problem sets Math Professional Development Tasks Course Project Parts 1, 2, 3 Child Interactions 1, 2 and 3
Knowledge for Teaching (Summative Assessment)	20%	Child Interaction Final Paper Course Project Part 4

### 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 20%

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
Peer Discussions	Potentially all	Potentially all



**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 4 class discussions, one per module) and activities 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/submitting 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 classroom activities, participate in classroom discussion, collaborate on mathematics problem solving activities and preparation for class including readings and other tasks as assigned. See rubric below for more details.

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**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. You will also have the opportunity to jump learning pods if you so choose at the very beginning of the semester if your grade level or interests have changed. Please know you will be working with your learning pods for the course project which is focused on the same grade level. Last semester, you had multiple learning pod assignments but this semester, they are much less frequent. 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 assignments that are to be completed collaboratively with your groups (e.g., via Zoom). These learning pod assignments will be included in the module course schedule and labeled as such. You should plan on having at least one meeting with your group each module. 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. Peer Discussions:** This semester, each module will include time to debrief about the math professional development experiences as a whole class via discussion board individually. The discussion board is where you will submit your math professional development artifacts and respond to peers based on their experiences. Your peer discussions will be considered in the assessment of your professional dispositions as well as part of your formative assessment (PD tasks). 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 (Formative Assessment): 60%

<b>Component of Learning Portfolio</b>	<b>National Standards (AMTE)</b>	<b>State Standards (GA Teachers)</b>
Math Journal (classwork, problem sets, course readings)	Potentially all standards	Potentially all standards



Engagement in Learning Pods  Math Professional Development Tasks	C.1.3. Exhibit Productive Mathematical Dispositions 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 9: Professionalism Standard 10: Communication
Instructional Design Project	C.1.2. Demonstrate Mathematical Practices and Processes C.1.1. Know Relevant Mathematical Content C.1.5. Analyze Mathematical Thinking C.1.4. Analyze the Mathematical Content of Curriculum C.3.1. Anticipate and Attend to Students' Thinking About Mathematics Content C.3.2. Understand and Recognize Students' Engagement in Mathematical Practices C.4.3. Draw on Students' Mathematical Strengths	Standard 1: Professional Knowledge Standard 2: Instructional Planning Standard 3: Instructional Strategies Standard 4: Differentiated Instruction Standard 6: Assessment Uses Standard 8: Academically Challenging Environment
Child Interaction Project	C.1.5. Analyze Mathematical Thinking C.1.4. Analyze the Mathematical Content of Curriculum C.3.3. Anticipate and Attend to Students' Thinking About Mathematics Content C.3.4. Understand and Recognize Students' Engagement in Mathematical Practices C.4.3. Draw on Students' Mathematical Strengths	Standard 2: Instructional Planning Standard 3: Instructional Strategies Standard 4: Differentiated Instruction Standard 6: Assessment Uses

1. **Instructional Content Completion: *Yu Ja Quizzes & Math journal work*-(15%):** Each module will include Yu Ja quizzes to check your understanding of the content. They should be graded automatically so you will receive feedback immediately (as opposed to open-ended questions like last semester). While you are engaging in the instructional content, you want to be reflective and have a space to process your learning. 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. It is not required to use the same math journal as last semester. If you enjoyed the math journal, you may continue to use the same one. If you would rather a google doc, you can use that method or if you would rather do something entirely different, fine by me! The intent of the math journal is for you to both actively reflect on and engage with the instructional content and have a space to make sense of ideas and consider their implications in terms of your future classroom. Some of the content of your journal will include:

- Problem sets as part of the instructional content
- Reading Summaries
- Preparation for jigsaw conversations

*Assessment of Journal*-Your math journal will be assessed based on completion, effort, evidence of reading, as well as the ability to showcase your learning from class in terms of instructional content. In other words, your journal should contain significant reflexive and reflective content but you can demonstrate your learning in any way you would like.

2. **Math Professional Development Tasks: (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 math professional development tasks is for you to explore a selection of resources and tools available to you as a teacher of mathematics. My hope is that you will learn how to use resources such as these to best meet the needs of your students and foster your own interests. You will notice choice is provided within each professional development task. The tasks are summarized below but details, templates, resources, and rubrics are posted on folio. Plan to spend about 2 hours on each of the professional development tasks and a professional development task will be due approximately every other module.

- 1) Explore technologies of your choice of those provided and consider ways to use each teach mathematics. Complete graphic organizer for each technology and collect photo artifacts of your explorations.
- 2) Engage with virtual professional development from the choices provided and create an infographic to share information learned with colleagues.
- 3) Create a photo essay that represents the beauty and mathematics within a community via slide deck or another platform/creative tool.
- 4) Create a professional way to communicate with families of future students and/or teachers via twitter, google site, blog, or Instagram.

### 3. **Child Interaction Project (20%)**

This assignment is intended to give you the opportunity to interact with an individual child for an extended period of time, so that you can focus on how that child is making sense of mathematical ideas in terms of place value and relate this experience with other class activities, particularly readings and discussions. You will spend approximately 15 min for each interaction—same child on three different occasions. At the conclusion of this project, a reflection will be required.

**Please note:** This assignment is not intended as a time for you to “tutor” a student in mathematics. Rather it is designed to give you the opportunity to learn about how students think about and respond to mathematics tasks.

- **Prior to the first interaction:** Conduct a “Get to Know you Math Interview”. Using the recommended set of questions on Canvas, interview your child to better get a sense of their academic, home, and community strengths and resources. The child does not have to be in your classroom, as long as it is a child in PreK-5<sup>th</sup> grade. I also happen to have three children you can borrow via zoom if needed!
- **Interaction #1, #2, and #3**
  - ***Before Interaction:*** Problem sets will be provided. The goal is to explore and better understand your child’s mathematical thinking. Use the planning template to prepare for your session with your child.
  - ***During Interaction:*** Audio-record your interaction to listen for reflection later. Collect a student artifact after the conclusion of your session. This may be in the form of student work on paper or a picture of their strategy if the child used manipulatives. If mental math was used, notate this on your planning template.
  - ***After the Interaction:*** Listen to the interview and complete a student/teacher discourse analysis, details will be posted in folio.

- **After the last interaction:** You will engage in a reflection about the experience grounded in course readings. A writing guide will be provided on folio. This aspect of the project will be part of your summative portfolio.

#### 4. **Instructional Design Project (15%)**

This semester, approximately every other module, a part of your instructional design project will be due at the end of the module. Each piece of the project will be on each other and will be completed in learning pods (grade level groups). each module will end with a module project. Please plan accordingly and give yourself sufficient time to complete the project prior to the end of the module.

As you already know, teaching is not about writing one individual lesson plan at a time but designing units of study relevant to students to help them make sense of larger mathematical ideas. For this course, you will be designing a culturally relevant unit of study which will serve as your course project, completed throughout the semester.

**Part 1: Funds of Knowledge:** In class we will learn the importance of building relationships and getting to know your students, including their assets, interests, academic needs, and dispositions. You will get to know the students in your class as a whole as you complete a funds of knowledge chart. If you are not a teacher of record, I will provide you with a “mock class” and you will complete a funds of knowledge chart for them. This piece of the course project will be done individually. By the end of part 1, you should have decided on a standard for the unit of study (or set of standards).

**Part 2: High Quality Math Task Evaluation:** As a learning pod, you will unpack the mathematics within the chosen standard(s) and brainstorm authentic scenarios to use to contextualize the unit. Finally, you will gather math tasks/lesson ideas and evaluate them based on cognitive demand and evidence of effective teaching practices using the rubric provided and justify your evaluations using evidence from course readings.

**Part 3: Lesson Plans:** As a learning pod, finalize the authentic scenario you would like to use to contextualize your math unit. From the high-quality math task evaluation, choose a number of math tasks or lesson ideas that seemingly build on one another and meet the same standards (a learning pod of 3 will choose 3 math tasks/lesson ideas, a learning pod of 5 will choose 5 math tasks/lesson ideas)—as if you were to teach a small unit of study. Together, you will write the first part of the lesson plan for the unit as a whole. Then each individual will write the second half of the lesson plan which is focused on the launch, explore, discuss structure and grounded in math discourse and children’s thinking. The primary goal of this piece is for you to be able to create/identify/modify a high-quality math task that include research-based theories and effective teaching practices to better fit the needs and of students, their learning goals and use the LED structure. You will also have the opportunity to provide quality, research-based feedback within your own learning pod from a culturally responsive lens. You will also be asked to differentiate your lesson plans based on the funds of knowledge for your classroom (or mock classroom).

**Part 4: Final Paper:** You will engage in a reflection about the experience grounded in course readings. A writing guide will be provided on folio. This aspect of the project will be part of your summative portfolio.

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#### **Knowledge for Teaching Portfolio (Summative Assessment): 20%**

Component of Portfolio	National Standards (AMTE)	State Standards (GA Teachers)
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Designing a Learning Segment (final paper)	Potentially all	Potentially all
Child Interaction Project (final paper)	Potentially all	Potentially all

1) Instructional Design Project, Part 4: Final paper about the experience as a whole as described above.

2) Child Interaction paper about the experience as a whole as described above.

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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.**

All written assignments must be turned in according to the due date posted. Late work will not be accepted.

**Please note that late assignments will not be accepted without prior notice**, and you must have a legitimate reason for requesting an extension (and you will not receive full credit). Technological difficulties do NOT constitute a legitimate excuse for late work nor does not having enough time to complete the assignment. Late work submissions must be communicated ahead of time with Dr. Smithey and an agreement must be made ahead of time. Unless otherwise specified, **all assignments are due by 11:59pm** on the specified due date.

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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.

**Academic Honesty:** Students are expected to abide by the GSU Student Conduct Code and Regulations regarding academic integrity. Academic misconduct such as cheating and plagiarism will be reported to the Office of Judicial Affairs and appropriate penalties imposed that could affect course grade. See [Student Conduct Code](#).

**Health and Safety:** Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live and believes this may affect their performance in the course, is urged to contact the [Dean of Students](#) for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable her to provide any resources that she may possess.

**Technical Support:** General technical support information is located in the *Technology Requirements* link in the *Course Orientation - Start Here* area of this course.

**Confidentiality:** Georgia Southern University asks that you respect the rights of faculty and other students as you participate in the education process, including your use of Folio. Accordingly, when accessing Folio course materials, please respect the privacy and personal information of faculty, staff, and other students in academic work such as class lists, discussion board postings, drafts of papers, and other work produced in this course.

### **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.