Instructor: Sarah M. Davis, Ph.D.
Office: School of Education, Health, and Human Performance, Room 232
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Office Hours: Drop in hours: M: 10:00a.m.-12:00p.m. & 1:00p.m.-3:00p.m. Available by appointment: W: 9:30-11:30
Office: School of Education, Health, and Human Performance, Room 232

Course Description:
This course focuses on the knowledge, dispositions, and performances necessary for quality early childhood mathematics education. Emphasis is on developmentally appropriate instructional strategies linked to the grades 2 - 8 content and process standards. Active learning, lesson planning, ongoing and worthwhile assessment, and informed teacher decision-making are major components.

Required Texts:


Recommended Text:

Class Supplies:
Common Core Standards (both practice and content) for mathematics 2-8 (online [http://www.corestandards.org/Math](http://www.corestandards.org/Math))

NCTM Standards (both process and content) for 2-8 (online [http://nctm.org/standards](http://nctm.org/standards))


Course Goals
To explore mathematics as conceptual understanding, procedural fluency, problem solving, explanation and justification, and agency – that is, mathematical proficiency

To develop the teaching skills to elicit, interpret, and respond to children’s mathematical thinking

To learn how to establish a classroom culture that promotes equity and provides opportunities for all students to work at a level of productive mathematical challenge

To learn how to teach mathematics lessons that promote mathematical proficiency, with a focus on the interactive teaching practices that support children’s thinking and learning
Course Assignments:

Due dates for course assignments, as well as scheduled exams, are listed on the tentative daily schedule at the end of the syllabus. Any changes will be announced in class or posted on OAKs. All assignments must be turned in during the class on the date due. If, for medical or serious personal reasons, an assignment is late, the instructor should be informed of the reasons. Otherwise, each late course assignment will receive a FIVE-PERCENT deduction per day that it is late. DO NOT give assignments to School of Education personnel. Assignments will NOT be accepted via email (unless specified explicitly). Assignments will NOT be discussed in class in detail, as noted in the schedule. This will be approximately at the time you should start working on the project. If you want to start or any project early, please do a careful reading of the assignment description posted to Oaks and feel free to ask the professor any clarifying questions.

All assignments must be typed and follow APA style guidelines, unless otherwise specified.

Tests (2)
TCs will be expected to complete two in-class tests. Material on these assessments comes from (1) in-class warm-ups, lectures, discussions, and activities; (2) out-of-class readings and assignments; and (3) NCTM and Common Core Standards. (Dates indicated on the schedule.)

Weekly Assignments: Reading Reflections AND Focus Questions and Tasks – JOURNAL FORMAT
To maximize the development of how to teach mathematics, it is imperative that TCs engage in their readings. Some of the readings will be addressed in class, but due to the vast body of pertinent literature in this field, some of the topics covered in the out-of-class readings will not. Therefore, to ensure active engagement with the readings and maximum knowledge gained from this course, TCs will be responsible for reflecting on readings throughout the semester.

TCs are to respond to assigned focus questions and tasks per week. Too, TCs are to reflect on each week’s reading by indicating points of confusion, descriptions of “AHA!” moments, topics connected to field, topics connected to personal experiences in school or with other children in school, and/or topics of concern (elaborating on why a concern). DO NOT SUMMARIZE; SUMMARIES ARE NOT REFLECTIONS.

Typically during the class indicated on the daily schedule, TCs will discuss the questions and reflections with their peers and/or with me and add insightful comments to their work as they see fit. Forms of assessment will vary related to this assignment (individual conferences, collection of responses and reflections per individual, collection per group, checklist based on responses during class discussion, site checking for completion, or open-notes/closed readings quiz). Feedback will be provided either on individually or to the class as a whole. However, there will be some chapters from the main text that will be outlined thoroughly and for which class discussion is minimal. This is based on the fact that these particular chapters are dense with pertinent information, thorough, and easy to understand. Material from these chapters will be included on the tests and should be integrated into other class projects as appropriate.

If late to class or not in class the day these are due, TCs will not receive credit for the assignment.

Weekly Assignments on OAKs

Mathematics is Everywhere
Throughout the semester, TCs should take note of how the CCSS for Mathematical Practice are integrated into other courses and in the real world. In a table format, with one of the eight CCSS Mathematical Practices per row, TCs should indicate the “location” where they observed the practice and provide a brief narrative describing what they observed and why it aligns with the given practice. TCs must have at least one distinct example per practice standard.

Clinical Interview
A significant theme in current math education reform is that "good teaching" has as its foundation learning to listen to, engage and extend learners' thinking and sense-making. In this project you will explore with someone (e.g. roommate,
friend, someone in another class, or even a parent) his/her understandings of some mathematics usually labeled
"basic." Much of this mathematics is the stuff of elementary and middle school mathematics. For this assignment,
you will be asked to do two interviews with two different people at two different times. Your job is to make sense of
and accurately describe the thinking of your interviewees. A good paper will give the reader an accurate account of
how the interviewee's thinking worked. Another person should be able to read the account and be able to explain the
interviewee's approach. A good paper will identifying what the learner DOES know. A detailed project overview,
description, readings and grading criteria are posted on Oaks.

**Teaching Children Mathematics (TCM) Lesson Plan**

TCs will choose an activity or lesson from an ODD year of TCM. TCs are to construct one full lesson plan based on this
activity. Chosen activities/lessons should be problem-based, student centered, and truly enhance learning. Additionally,
chosen activities/lessons should not be part of traditional, direct instruction or drill and practice. Given that TCs will be
assessed on the quality of their lessons rather than where they came from, TCs likely will need to adapt what is found to make
sure the quality of the tasks meet the criteria of the provided lesson plan. TCs’ lessons should reflect the characteristics of
effective lessons outlined in class. TCs must choose a grade level from PK-3 and can assume that students have access to
ample resources.

The assignment will have 3 major components: the creation of a lesson, providing feedback to others, and the revision of
his/her own lesson based on peer feedback.

**Grading Criteria on OAKs.**

**Teaching Children Mathematics (TCM) Shared Lesson**

TCs are to find an activity or lesson from an ODD year of TCM (or another NCTM resource) that fits their assigned content area
and grade level that was not used by another TC for the TCM lesson planning project. There are to be no duplicates in
activities. TCs are to write a complete lesson plan using this activity. The lesson plan should contain all of the
components of the EHHP lesson plan format provided on OAKS and discussed in class.

TCs will (a) provide a copy of the lesson to and (b) rehearse the lesson for their content group prior to presenting
the lesson to the class. The content-group peers must EACH provide constructive feedback about the lesson plan and
implementation. Feedback elements included on grading criteria on OAKs.

**TCs will not be permitted to teach the lesson to the class unless approved by their peer group ahead of time. If for some reason, a content peer did not provide feedback, documentation must be presented to indicate a**

**attempt was made early enough for the peer to provide expected feedback.**

Each TC will have time set aside in class to review how the lesson should be implemented to a classroom of
students. This means that TCs should have all of the materials ready to demonstrate the lesson to their classmates.
They will have fifteen minutes per group (three groups total – PK-1, 1-2, and 3) to go over the lesson
implementation. Peers are expected to provide “the teacher” with constructive feedback. TCs will utilize this
feedback to update the lesson.

To be submitted to me a week following the lesson demonstration/rotations: (1) a brief explanation of why they
chose this article and its activity to share with their classmates (see grading criteria for specifics). (2) all peer
feedback in a bulleted list (telling who it came from), (3) the final lesson plan draft which should take into account
both the content-peer feedback and the remaining peer feedback from the day of the demonstration and indicate the:
feedback in some organized, clear fashion within the final draft (tracked changes, highlighting, comments, change
in font color, strike-through font, etc.), (4) a brief written reflection (see grading criteria for specifics), and (5) an
appendix with the TCs critique to his/her content peers.

These lessons are categorized by the NCTM content standards. Presentations will be in center format. That is, there
will be three centers – PK-1st, 1st – 2nd, and 3rd. Each center will have 15 minutes to teach a small group. Small
groups will rotate through all three centers. Presenters must keep in mind the time limit, along with what material:
they need to teach to all three groups. The rationale for sharing lessons in this center format is to allow each TC multiple times to teach the same activity, ideally improving with each iteration, and to provide TCs with a multitu
d of lesson ideas for future teaching across the grade band.

Draft and Rehearsal: Due A WEEK BEFORE PRESENTING IN CLASS to content peer group for approval
and feedback
Presentation: Due date indicated on daily schedule
Final Project: Due a week following the presentation
Grading Criteria and Lesson Plan Template on OAKS

SUGGESTION: TCs should begin building a toolbox of lessons/activities based on what is shared in this class. I recommend that throughout the semester, TCs compile the lessons gained from their classmates into a portfolio organized either by grade level or content standard. TCs are reminded that they can email their classmates via OAKs or request that I post their lessons to OAKs.

Curriculum Analysis Final Project
TCs will be assigned unit from a mathematics curriculum to analyze and revise to address a certain content area within the CCSS and SC Standards. As a group or in pairs, they will (1) analyze the ENTIRE unit, guided by the questions below; (2) revise and/or replace one lesson within the unit, choosing the lesson that is least effective in meeting the standards in a problem-based manner based on the analysis; (3) address what should be revised in the entire unit.

(1) Analyze the ENTIRE unit, looking at each lesson and the arc of the lessons:
Questions to address in completing the presentation related to: Nature of classroom tasks, Social culture of the classroom, and Equity and accessibility
• Do the tasks require students to think as opposed to simply practice?
• Do the tasks encourage reflection, communication, and/or cooperative learning?
• Are the tasks engaging and interesting enough that students want to pursue them? Specifically, are the tasks intrinsically motivating?
• How well do the tasks take into account related tasks from previous experiences, both in and out of school?
• Is the required thinking mathematical as opposed to simply rote learning?
• Are the Common Core and SC mathematics standards ACCURATELY aligned? If not aligned, what standards (both practice and content) align with each lesson within the given unit? What standards are missing?
• To what extent does the text provide enough options to make it likely that all children will be successful? How are students including special education, Gifted and Talented, English Language Learners, and students with special needs addressed?
• Are the suggested accommodations appropriate for all students?
• What is done to help the teacher make sure every student contributes?

(2) Revise and/or Replace one lesson within the unit
Based on the analysis, choose the lesson that is the least effective in meeting the standards in a problem-based manner. Revise and/or replace the lesson by utilizing what was discussed in class about high-quality mathematics instruction (addressing all learners; utilizing innovative techniques that encourage problem solving, communication, connections, multiple representations, and reasoning; integrating technology, literacy, and other content areas; etc.). TCs are free to use resources discussed in class (NCTM journal articles, illuminations, the texts, etc.) and/or seek help from expert teachers, making sure to cite accordingly.

TCs must include the original lesson from the unit that is being revised or replaced, with markings, comments, and critiques. TCs must include the final lesson plan which should take into account these markings, comments, and critiques. In some organized, clear fashion, the comments and critiques of the chosen lesson influencing how the lesson was revised or why it was replaced should be indicated on the final draft (tracked changes, highlighting, comments, change in font color, strike-through font, etc.).

(3) Revise the unit
Explain how the unit was revised (based on the revised lesson) AND how the unit should be revised in order for it to address deficits related to standard alignment, nature of the classroom tasks and culture of classroom, and equity and accessibility. In order to prove that there were not deficits for certain standards, nature of classroom components, and/or equity/accessibility components, TCs must provide an example and location for each of the satisfactory/met criteria/standards. TCs should address each component and standard (all CC practice and all assigned CC content) under its own distinct heading.

Project due date: EXAM DAY
Grading Criteria on OAKs

Professionalism
◊ Participation
This class is designed to be active and interactive. Much of your learning will evolve from in-class activities, experiences and discussions. You need to be in class, participate, discuss ideas with your group and with the class, and work to make sense of the activities. Prepare for the class, contribute, and ask questions. Be thoughtful and respectful. There will be a number of warm ups, discussions, activities, and homeworks TCs will be expected to participate in and/or complete.

◊ Attendance
Class attendance is expected in both body and mind. Failure to participate in class in some fashion (written, oral, group, etc.) will be considered an absence from class. Students who miss more than 2 classes will receive a .25 point deduction for each additional missed class session. Multiple tardies will also result in loss of professionalism points (3 tardies = 1 absence). If you know that you will miss a class or be late for class, please notify me via email as soon as possible.

TEDU Attendance Policy
Excessive absences (i.e., more than 15% - approximately 5 hours/2 classes) may result in receiving a “WA/F.” Students will be tardy if they arrive in class within the first 20 minutes after class has started. Three tardies result in one absence. Students will be absent if they arrive after 20 minutes or if they leave class early. Regarding being tardy or having to leave class early, exceptions will be made on an individual basis, but students must speak with me about extenuating circumstances for such exceptions. Regarding absences, if a student exceeds allowable absences due to extenuating circumstances beyond the student’s control, a panel of professors from that semester will review the circumstances and make a final decision.

If a student exceeds allowable absences due to extenuating circumstances beyond the student’s control, a panel of professors from that semester will review the circumstances and make a final decision. SNAP students, if they wish special accommodations, must see the professor within the first two weeks of the course or as soon as they find out about potential accommodations if determined mid semester. Athletes who will miss class due to athletic events must see the professor within the first two weeks of the course and submit athletic schedule for the semester, identifying classes that will be missed. No other absences will be allowed for athletes who miss the maximum allowable absences due to athletic events.

Evaluation
It will be possible to earn 175 points during the semester. They will be distributed as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Reading Reflections, Focus Questions and</td>
<td>55</td>
<td>27.5%</td>
</tr>
<tr>
<td>Participation (Completed CW &amp; HW)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math is Everywhere</td>
<td>10</td>
<td>5%</td>
</tr>
<tr>
<td>Clinical Interview</td>
<td>25</td>
<td>12.5%</td>
</tr>
<tr>
<td>TCM Lesson Planning</td>
<td>25</td>
<td>12.5%</td>
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<tr>
<td>Shared TCM/MTMS Lesson</td>
<td>25</td>
<td>12.5%</td>
</tr>
<tr>
<td>Tests</td>
<td>30</td>
<td>15%</td>
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<tr>
<td>Curriculum Analysis Final Project</td>
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<td>15%</td>
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Evaluation Scale

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<th>Grade Points</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>93-100%</td>
<td>4.0</td>
<td>Fabulous</td>
</tr>
<tr>
<td>A-</td>
<td>91-92%</td>
<td>3.7</td>
<td>Fine</td>
</tr>
<tr>
<td>B+</td>
<td>89-90%</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>86-88%</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>B-</td>
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<td></td>
</tr>
<tr>
<td>C+</td>
<td>82-83%</td>
<td>2.3</td>
<td>Not fine</td>
</tr>
<tr>
<td>C</td>
<td>79-81%</td>
<td>2.0</td>
<td>Not acceptable</td>
</tr>
<tr>
<td>C-</td>
<td>77-78%</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>D+</td>
<td>75-76%</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>72-74%</td>
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</tr>
<tr>
<td>D-</td>
<td>70-71%</td>
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<tr>
<td>F</td>
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Course Requirements:

Demonstration of SOE Dispositions
Examples of how dispositions are evident are provided in italics.

- Belief that all students can learn, *participation and attitudes expressed about students and learning*
- Value and respect for individual differences, *interactions in class discussions and participation in group work*
- Value of positive human interactions, *participation in class and in group work*
- Exhibition and encouragement of intellectual curiosity, enthusiasm about learning, and willingness to learn new ideas, *participation in class and group discussions and performance on assessments*
- Dedication to inquiry, reflection, and self-assessment, *participation in class and group discussions; performance on assessments (especially the reading and course reflections assignments)*
- Value of collaborative and cooperative work, *thoughtful, constructive critiques of others’ work, participation in class activities*
- Sensitivity toward community and cultural contexts, *participation in class and group discussions, tolerating, discussing, and respectfully listening to differing points of views*
- Engagement in responsible and ethical practice, *performance on assessments, class attendance, and participation in group activities*
- Development of professional mastery over time, *performance over time in writing, thinking, and expression of knowledge*

Written and Oral Communication

TCs are expected to use correct grammar at all times. Points will be deducted on written assignments for grammatical errors. All references must follow the American Psychological Association (APA) Guidelines for Term Papers. TCs are encouraged to take advantage of the Writing Lab in the Center for Student Learning (Addlestone Library, first floor). Trained writing consultants can help with writing for all courses; they offer one-to-one consultations that address everything from brainstorming and developing ideas to crafting strong sentences and documenting sources. For more information, please call 843.953.5635 or visit [http://csl.cofc.edu/labs/writing-lab/](http://csl.cofc.edu/labs/writing-lab/). Further, it is imperative that TCs use correct grammar in all oral communication, especially during field experiences. Classroom teachers, student peers, and I will collaborate to eliminate all oral grammatical errors, using an approach of constructive criticism.

Utilization of Computer Applications (Available in the CofC managed computer labs located in JC Long, Library, and other campus sites. If unfamiliar with these applications, set up a time for tutoring with me.)

- Internet
- Word processing
- OAKS

Completion of all assigned readings and assignments **ON TIME.**

See Course Assignments below for detailed descriptions.

Responsibility for **ALL** course content
Including lecture, text, outside reading, handouts, research, etc.

Responsibility for keeping up with grades and attendance
If you miss a class, ask a classmate for the missed assignments and notes.

Respectful Conduct
TCs are expected to be respectful and considerate of one another. Cell phones should be turned off while in class. Laptops should only be used in class if they are facilitating the development of mathematical thinking; if they appear to be a distraction, I will ask that they be put away. Disrespectful conduct will result in a loss of professionalism points.

CofC Honor System
Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when identified, are investigated. Each incident will be examined to determine the degree of deception involved. Incidents where the instructor determines the student’s actions are related more to a misunderstanding will handled by the instructor. A written intervention designed to help prevent the student from repeating the error will be given to the student. The intervention, submitted by form and signed both by the instructor and the student, will be forwarded to the Dean of Students and placed in the student’s file.

Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive a XF in the course, indicating failure of the course due to academic dishonesty. This grade will appear on the student’s transcript for two years after which the student may petition for the X to be expunged. The student may also be placed on disciplinary probation, suspended (temporary removal) or expelled (permanent removal) from the College by the Honor Board.

Students should be aware that unauthorized collaboration--working together without permission-- is a form of cheating. Unless the instructor specifies that students can work together on an assignment, quiz and/or test, no collaboration during the completion of the assignment is permitted. Other forms of cheating include possessing or using an unauthorized study aid (which could include accessing information via a cell phone or computer), copying from others’ exams, fabricating data, and giving unauthorized assistance. Research conducted and/or papers written for other classes cannot be used in whole or in part for any assignment in this class without obtaining prior permission from the instructor.

Students can find the complete Honor Code and all related processes in the Student Handbook at http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php

ADA Accommodations
In compliance with the Americans Disabilities Act (ADA), all qualified students are entitled to “reasonable accommodations.” Any students requiring accommodations should contact the Center for Disability Services (953-1431) and provide me with documentation of needed accommodations within the first two weeks of the course or as soon as they find out about potential accommodations if determined mid semester.

Course Objectives and Standards
All teacher preparation programs in the College of Charleston’s School of Education (SOE) are guided by a commitment to the conceptual framework of “Making the Teaching and Learning Connection.” Three elements of teacher competency (ETC) are fundamental to this framework; teachers must (1) understand and value the learner, (2) know what and how to teach and assess within a conducive learning environment, and (3) understand themselves as professionals. In addition, these competencies are foundational to the learning and assessments within this course, facilitating the development of knowledge, skills, and dispositions necessary for becoming an effective teacher.

Below are the specific end-of-course outcomes related to these teacher competencies. They are derived from the standards set forth by the National Council of Measurement in Education (NCME) and relate to those of the (1) School of Education (SOE), (2) National Council for Accreditation of Teacher Education (NCATE), (3) National Association for the Education of Young Children (NAEYC), and State Standards for Teacher Education (SC). They,
therefore, indicate the expectations for teacher candidates within the School of Education, early childhood teachers and elementary-grades teachers.

1. Teacher candidates (TCs) will develop the understanding of how students learn to construct mathematical ideas from the concrete early childhood experiences through the development of thinking abilities in early elementary grades. SOE I; NCATE 1; NAEYC 4b

2. TCs will articulate a vision of school mathematics that supports access of all students to a curriculum that emphasizes important mathematical concepts; effective and engaging research-based instructional practices; and high expectations with appropriate accompanying accommodations. SOE II, III; NCATE 2d, 3d; NAEYC 4b, 5

3. TCs will convey an appreciation for the discipline of mathematics including its history and the contributions of diverse cultures to the field. SOE II, VII; NCATE 2d; SC 4 (contextual teaching and diverse learning styles)

4. TCs will articulate the knowledge that mathematics curriculum must be coherent and focused on important useful concepts that are connected within the discipline and across disciplines. SOE II; NCATE 2d, 2i, 3a; NAEYC 5; NMSA 4.K2, SC 4 (contextual teaching)

5. TCs will recognize the importance of the role of student ideas, interests, and needs in the design, implementation, and evaluation of mathematically-based learning experiences. SOE I; NCATE 2d, 3a, 3d; NAEYC 1a, 5; NMSA 3.K5, 3.D4, 4.P3; SC 4 (diverse learning styles; cooperative teaching)

6. TCs will demonstrate an understanding of the need for a variety of instructional strategies to effectively address developmental, ability and learning style needs of PK-8 students exhibiting diversity in its many forms. SOE III; NCATE 4; NAEYC 1, 4b; NMSA 1.P5, 1.P10, 4.K3, 5.K2; SC 4 (diverse learning styles)

7. TCs will develop the knowledge of, and dispositions that value, ongoing, systematic, formal, and informal assessment as an integral part of instruction that guides and enhances learning. SOE VI; NCATE 4; NAEYC 3, 4b; NMSA 1.P6, 5.K8, 5.D5, 5.P4, 6(all)

8. TCs will communicate about and through mathematics verbally and in writing using both everyday language and mathematical representations. SOE II; NCATE 2d, 3e; NAEYC 4b; NMSA 4.K4, 4.D4, 4.P5

9. TCs will demonstrate knowledge of the organization of the content standard areas of number and operations, algebra, geometry, measurement, data analysis and probability within the PK-8 mathematics curriculum as prescribed by the NCTM and the SC Standards. SOE II; NCATE 2d; NAEYC 4b, 5; NMSA 4, 6.K5; SC 7

10. TCs will demonstrate the value and integrative nature of the process standards of problem solving, reasoning, communication, connections, and representations within the PK-8 mathematics curriculum as prescribed by the NCTM and the SC Standards. SOE II; NCATE 2d, 3c; NAEYC 4b, 5, 4c; NMSA 4, 5.K3, 5.P2, 6.K5; SC 4 (contextual teaching); SC 7

11. TCs will demonstrate competency in, and an understanding of the value of, a breadth and depth of mathematical knowledge and skills that extend beyond the level for which the TC is preparing. SOE II; NCATE 2d

12. TCs will state characteristics of a positive classroom environment conducive to the promotion of student confidence in their abilities to understand and use mathematics. SOE I & III; ETC 1; NAEYC 1c, 5; SC 6

13. TCs will formulate appropriate objectives and student participation activities for math lessons. SOE III; ETC 2, 3; NAEYC 5

14. TCs will demonstrate the ability to (1) relate mathematical concepts through the use of manipulatives and (2) incorporate appropriate technology into classroom instruction. SOE II & III; ETC 2; NAEYC 4b, 5; SC 16

15. TCs will develop awareness and be able to communicate how mathematics relates to various career options with
Course Alignment with Common Core Standards

College and Career Readiness Mathematics Practice Standards
1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

College and Career Readiness ELA Standards

Reading.
Key ideas and details.
1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.

Craft and structure.
4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.

Integration of knowledge and ideas.
7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

Range of reading level and text complexity.
10. Read and comprehend complex literary and informational texts independently and proficiently.

Writing.
Text types and purposes.
1. Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.

Production and distribution of writing.
4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

Range of writing.
10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Speaking and Listening.
Comprehension and collaboration.
1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others’ ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric.

Presentation of knowledge and ideas.
4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

**Language.**

*Conventions of Standard English.*

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

### TEACHER EDUCATION PROGRAMS: FINAL DRAFT OF EEDA PERFORMANCE STANDARDS

1. **DEFINITION:** Career Guidance is a process by which students become aware of the world of work, explore career options, and prepare for post-secondary opportunities. **Performance Standard:** Teacher candidates will explain the career guidance process.

2. **DEFINITION:** The curriculum framework for career clusters of study is an organizational model that integrates career preparation components with academic coursework, providing the foundation for the development of the Individual Graduation Plan (IGP). The IGP, organized around career clusters and majors, is an educational plan aligned with students’ interests, aspirations, and experiences. **Performance Standard:** Teacher candidates will explain the curriculum framework for the career clusters of study concept and its relevance to the Individual Graduation Plan (IGP).

3. **DEFINITION:** The elements of the Career Guidance Model are awareness, exploration, and preparation. **Performance Standard:** At the age-appropriate level of instruction, teacher candidates will explain the use of the career guidance standards and competencies as specified in the *South Carolina Comprehensive Developmental Guidance and Counseling Program Model.*

4. **DEFINITION:** Character education encompasses the identification, understanding, and performance of core values (listed in §59-17-135) that enhance citizenship, relationships, and quality of life. **Performance Standard:** Teacher candidates will identify instructional strategies that promote core values, as specified in §59-17-135, in the school community.

5. **DEFINITION:** Contextual teaching is a concept that refers to methodologies used by teachers that focus on concrete, hands-on instruction and content presentation with an emphasis on real-world application and problem solving. **Performance Standard:** Teacher candidates will use concrete, hands-on instruction and content presentation with an emphasis on real-world application and problem solving.

6. **DEFINITION:** Cooperative learning is an instructional technique where students interact collaboratively to complete a task. **Performance Standard:** Teacher candidates will implement learning strategies that promote cooperation.

7. **DEFINITION:** Learning styles is a concept that refers to methodologies intended to accommodate diversity in student learning. **Performance Standard:** Teacher candidates will implement strategies to accommodate the needs of diverse learners.
<table>
<thead>
<tr>
<th>WEEK</th>
<th>Topic</th>
<th>Readings &amp; Assignments to be completed for the given class</th>
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<tbody>
<tr>
<td>2</td>
<td><strong>Problem-Based Teaching and Learning &amp; Beginning Lesson Planning</strong>&lt;br&gt;8/27&lt;br&gt;Review RR/FQ&lt;br&gt;Warm up: Share cultural artifacts*&lt;br&gt;Problem solving – a vehicle for building understanding and acquiring basic skills&lt;br&gt;Snowman activity*&lt;br&gt;Choral counting: Show video, talk about as model of problem-based learning.&lt;br&gt;Discuss Components of TEDU Lesson Plan&lt;br&gt;Explanation of Mathematics is Everywhere</td>
<td>▪ Read VDW Ch. 3: Teaching through problem solving (pp. 32 – 49 [top]) – Read in class&lt;br&gt;▪ (RR/FQ 1)&lt;br&gt;▪ Cultural Artifact HW&lt;br&gt;▪ Suggestion: Review TCM &amp; MTMS to find Shared Lesson Activity</td>
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<td>3</td>
<td><strong>Equity, Accessibility and Lesson Planning</strong>&lt;br&gt;9/3&lt;br&gt;Equity lecture (45 min)&lt;br&gt;Critique lesson plans, using form. (45)&lt;br&gt;Choral Counting (45)&lt;br&gt;Explanation of TCM Lesson Planning (15 min)</td>
<td>▪ Read VDW Ch. 3: Section, “A Three-Phase Lesson Format”... (pp. 49 – 56)&lt;br&gt;▪ Read VDW Ch. 4: Planning in the Problem-Based Classroom (pp. 59 – 64)&lt;br&gt;▪ Read VDW Chs. 6 &amp; Skim 7; assigned articles posted to OAKS related to “addressing individual needs” (RR/FQ 2)</td>
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<td>4</td>
<td><strong>Children’s Thinking about Addition and Subtraction, Assessment</strong>&lt;br&gt;9/10&lt;br&gt;Problem Types for Developing the Meaning of Addition and Subtraction&lt;br&gt;Children’s Solution Strategies for Addition and Subtraction Problems, How Those Strategies Develop&lt;br&gt;Problem Type Identification Activity*&lt;br&gt;Problem Strategy Identification Activity*&lt;br&gt;Explanation of Clinical Interview Assignment</td>
<td>▪ CGI – Chs. 1, 2 &amp; 3: Addition and Subtraction - Children’s Solution Strategies&lt;br&gt;▪ VDW – Ch. 8: Developing Early Number Concepts (pp. 128 – 132)&lt;br&gt;▪ VDW – Ch. 9: Developing Meaning for the Operations (pp. 151 [bottom] – 158) &amp; “Caution: Avoid Relying on the Key Word Strategy” (pp. 166-167)&lt;br&gt;▪ (RR/FQ 3)&lt;br&gt;▪ TCM Lesson Planning drafts due to peer group by beginning of class.</td>
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<td>Week</td>
<td>Task</td>
<td>Details</td>
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| 5    | Multiplication and Division Problem Structures & Mastering Basic Facts | - Problem Types for Developing the Meaning of Multiplication and Division  
- Children's Solution Strategies for Multiplication and Division Problems, How Those Strategies Develop  
- Problem Type and Strategy Activity*  
- CGI - Ch. 4: Multiplication and Division  
- VDW – Ch. 9: Developing Meaning for the Operations (pp. 158-164)  
- TCM Lesson Planning Critique due to your peers by beginning of class.  
- This will be checked. |
| 6    | Children’s Thinking about Base-Ten Concepts & Strategies for Whole-Number Computation | - Development of Children's Understanding of Base-10 and Place-Value Concepts  
- Big Ideas in Base-10 and Place Value  
- Learning Basic Facts  
- Strategies for Whole Number Computation Activity*  
- Different Types of Algorithms for Multi-Digit Computation  
- CGI – Ch. 6  
- OAKS – Holden, “Preparation for Problem Solving”  
- VDW – Chap. 12: Developing Strategies for Whole-Number Computation (pp. 216 – 225)  
- TCM Lesson Planning (WWW) Final Project |
| 7    | TEST 1 (1.5 hours) | - Small group discussions of Clinical Interview 1  
- Explanation of TCM & MTMS Lesson Planning and Teaching  
- Gator Pie  
- Bring favorite children's lit book to class next week.  
- Explanation of literature connection HW & Praxis HW  
- Study for test  
- Read CGI Chs. 7 & 8  
- Be prepared to share WWW projects on IPADs |
| 8    | Fractions | - Equal Sharing and the Development of Children's Understanding of Fractions  
- Writing story problems to elicit big ideas in fractions  
- Creation of Fraction Problem Activity*  
- Read VDW Chs. 15 & 16 (RR/FQ 5)  
- (RR/FQ 5)  
- CGI Fraction Reading |
| 9    | Blurring the ELA-Mathematics Divide | - Blurring the ELA-Mathematics Divide: Oral and Written Communication via Problem-Based Curricula M³: Treasures from the attic*  
- Explain Final Project  
- Clinical Interview Assignment Due  
- Read VDW Ch. 17 and article (Part of RR/FQ 6) |
| 10   | Decimal and Percent | - Problem-Based Teaching in Practice with M³: Treasures from the attic*  
- Praxis HW*  
- Read VDW Ch. 17&18 (RR/FQ 6 – includes week 9) |
<table>
<thead>
<tr>
<th>Date</th>
<th>Lesson Topic</th>
<th>Notes</th>
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<tbody>
<tr>
<td>11/29</td>
<td><strong>Algebraic Thinking and Technology</strong></td>
<td>- Read VDW Ch. 14 (RR/FQ 7)</td>
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<td>- Mathematics is Everywhere Assignment Due</td>
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<td>- <strong>Algebra Shared TCM &amp; MTMS Lessons</strong></td>
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<td>11/5</td>
<td><strong>Geometry and Measurement</strong></td>
<td>- Literature Connection HW</td>
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<td>- Read Ch. 20 and The van Hiele model of thinking in geometry among adolescents (Chapter 3) – (Part of RR/FQ 8)</td>
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<td>- <strong>Geometry Shared TCM &amp; MTMS Lessons</strong></td>
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<tr>
<td>11/12</td>
<td><strong>Geometry and Measurement</strong></td>
<td>- Read Ch. 19 (RR/FQ 8 – includes week 12)</td>
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<td>- <strong>Measurement Shared TCM &amp; MTMS Lessons</strong></td>
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<td>11/19</td>
<td><strong>Test 2 &amp; Data Analysis and Probability</strong></td>
<td>- Study for Test 2</td>
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<td>- Skim VDW Chs. 21 &amp; 22</td>
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<td>- <strong>Data analysis Shared TCM &amp; MTMS Lessons</strong></td>
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<td>EXAM DAY</td>
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<td>- Presentation/Demos: 25-30 min each group</td>
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<td>- Curriculum Analysis Presentation &amp; Lesson Demonstration (whole class)</td>
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- Number & Operations Lesson Rotation (15 min each)
- Geometry Lesson Rotation (15 min each)
- Measurement Lesson Rotation (15 min each)
- Data Analysis & Probability notes and activities* (Ch. 21) (45 min)