Instructor: Alexandra D. Owens, M. Ed.
Email: adavis1@cofc.edu
Office Hours: Thurs: Immediately following class; or by appointment
Email Hours: Mon - Fri: If during school hours, OwensA@bcsdschools.net; adavis1@cofc.edu any other time.
Due to teaching/meeting schedule, do not expect immediate feedback.

Course Description:
This course focuses on the knowledge, dispositions, and performances necessary for quality 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 Text:

Optional Text:

✓ Available online at [www.nctm.org](http://www.nctm.org)

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 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

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.

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).

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.)

Reading Reflections (RR) (8) – 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 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.

At the beginning of 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 (checklist based on responses during class discussion, site checking for completion on OAKS, or open-notes/closed readings quiz). Each should be posted on OAKS prior to the start of that week’s class. Feedback will be provided either on individually or to the class as a whole.

If late to class or not in class the day these are due, TCs may not receive credit for the assignment.
WWW Lesson Plan
TCs will choose an activity or lesson from any NCTM source (Illuminations, TCM, MTMS, etc.). The activity must incorporate an online resource in a meaningful way (i.e., Illuminations interactive tool, NASA data, Weather data, etc.) that has value for teaching mathematics. TCs will have 3-5 minutes to show the resource. The purpose of this project is to integrate technology (in this case the online resources) into the development of worthwhile tasks for teaching mathematics.

Specifically, TCs are to construct one full lesson plan based on one online resource. The resource sites can be sites with data and/or other information that are useful for developing a lesson, or they can be sites that contain actual interactive activities. Chosen activities/lessons should be problem-based, student centered, and truly enhance learning – not just to show use of technology for technology sake. 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 2 - 8 and can assume that students have access to the web either in the school library or their classroom.

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. See the grading criteria below for specifics.

Post draft to a class discussion board.
Read and give feedback on 3 drafts; if there are already 3 feedback posts, TCs must do someone else. To ensure a TC’s spot as a reviewer for a particular lesson, TCs should commit with a temporary post that is to be replaced by the actual review. Feedback elements include:
• What you like and why?
• What you don’t like and why?
• Are all of the EHHP lesson-plan components present and appropriately connected? For example, are all the materials listed needed for what the procedures indicate; do the objectives, standards, and assessments relate; are the suggestions made for addressing individual differences related to the objectives and standards; etc.
• Is there sufficient information in the write-up for you to use it “as is” to teach a lesson? If not, what is missing?

THIS IS AN EXERCISE ALIGNED WITH MATHEMATICAL PRACTICE STANDARD 3: Construct viable arguments and critique the reasoning of others.

For the final project to be submitted, TCs are to create a bulleted summary of the feedback received, commenting on how it was addressed within the revised lesson plan. This should be between one and two pages, typed, and double spaced. They must also include the revised lesson plan. TCs should highlight revisions made based on peer feedback. TCs must also include an appendix of the feedback they provided for their peers.

Draft due to discussion board: WEEK 4
Peer feedback to discussion board: WEEK 5
Final project and brief presentation due IN CLASS: WEEK 6

Clinical Interview
TCs will interview one adult to gain insight into their understanding and conceptual processes for solving a mathematical task. Interviews should be audio or video taped. We will conduct a practice interview in class. After this first interview, TCs will reflect on how it went and what to do differently. TCs should take detailed notes of the reflection as it will be part of the final write up. TCs will then create two problems that are within their chosen mathematics strand for the second interview. The write up will include the following sections:

Global Introduction
Briefly describe what a clinical or diagnostic interview is. Briefly describe the value of this type of assessment.
For Both Interviews: Specific Introduction
Report the question(s) used and (1) identify the content that the question(s) is/are intended to elicit in the interviewees thinking and (2) identify the conceptual ideas you expect the interviewee to elicit when answering this question.
Give a brief introduction of the interviewee (something about their background).
Describe the setting where the session took place, and how you introduced the activity to them.
How do TCs expect the interviewee to answer the question posed?

Description of Interviewees’ Ways of Thinking…
Provide a description, remembering that the focus is on the development of the ideas, thus, important to describe what the interviewee’s ideas (not the TC’s) were. Focus should not be on what the solution to the problem is but more on the interviewee’s conceptions, explanations, and views.
TCs are there to listen, not to intervene. Thus, no teaching or suggestions for solution should be given during the interview. Once TCs have faithfully reported on the interviewees’ ways of thinking about the specific content selected, it is time to make interpretations.

Interpretation About Your Interviewees’ Ways of Thinking
How would TCs explain or interpret the interviewee’s ways of thinking about the question posed?
What did TCs find out about the interviewee’s knowledge on the particular concept/idea selected?

Thoughts: What did TCs learn from this interview?
How did TC’s initial expectations about how interviewees were going to answer compare to how they answered. Were they the same? Different? Did anything surprise TCs? Explain.

Global Conclusion
What did TCs learn about Clinical Interviews (as a Methodology)?
What did TCs do differently in the second Clinical Interview compared to what was done in the first one?
TCs should mention 3 things that were the most important guidelines for conducting an interview.

Appendix: Transcript and Participants’ Work
TCs are to create a transcript of the interview and attach all interviewees’ work (scanned or photographs), including their final solutions.
Length: 1000-1500 words, not including Appendices

Due: Week 9
Grading Criteria on OAKs

Teaching Children Mathematics (TCM) and Mathematics Teaching in the Middle School (MTMS): Shared Lessons
Teaching Children Mathematics (TCM) and Mathematics Teaching in the Middle School (MTMS) are official journals of the National Council of Teachers of Mathematics (NCTM) and a forum for the exchange of ideas in curriculum, instruction, learning, and teacher education. The primary audiences of TCM and MTMS are elementary-school teachers and upper-elementary/middle-grades teachers, respectively. The journals contain many articles with ideas that are directly applicable to the classroom. The objective in having TCs look at the journals is to help them gain familiarity with them as resources for teaching mathematics.

TCs are to find an activity in TCM or MTMS (or another NCTM resource) that fits their assigned content area and grade level. 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 it to the class. The content-group peers must EACH provide constructive feedback about the lesson plan and implementation. Feedback elements include:
• Are all of the components present and appropriately connected? For example, are all the materials listed needed for what the procedures indicate; do the objectives, standards, and assessments relate; are the suggestions made for addressing individual differences related to the objectives and standards; etc.
• Is there sufficient information in the write-up for you to use it “as is” to teach a lesson? If not, what is missing?
• Does the lesson meet the criteria for being a problem-based lesson? Why or why not?
• During the presentation, what was communicated well? What was not communicated well? How could communication be improved so to maximize student learning?
• Did the implementation of the lesson match the lesson plan?
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 an 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 – 2-3, 4-5, and 6-8) 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) TCs should write a brief explanation of why they chose this article and its activity to share with their classmates (see grading criteria for specifics). (2) TCs must include all peer feedback in a bulleted list (telling who it came from). (3) TCs must include 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. In some organized, clear fashion, the feedback used to revise the final draft should be indicated on 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 feedback 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 – 2nd/3rd, 4th/5th, and 6th/7th/8th. 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 materials 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 multitude 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.

**Unit Work Sample Final Project**
TCs will create a Unit Work Sample that will compile and reflect upon all of the work completed during the semester. The format and outline of this assignment is based on first and second year evaluation requirements. Unit Work Samples should focus on the chosen grade level and mathematics strand used to write lesson plans and other assignments during the semester. The write up will include the following sections:

**Section I: Major Unit Objectives**
Describe the major objectives of the unit. Include at least five objectives. Correlate the objectives to the appropriate grade-level standards and competencies. Reflect on the objectives including: How did you craft these objectives so that your students understand both the objectives and the relevance? How do these objectives support the standards and correlate to your goals?

**Section II: Instructional Plan**
Describe the sequence of lessons that you need to follow if your students are to achieve the unit objectives. As a general rule, include a description of at least ten days of lessons. For every lesson, the description must include the content, strategies, materials and resources. (Reference your two completed lesson plans and literature connection). Reflect on the instructional plan including: How does this plan establish a balance between grade-level academic standards and the needs, abilities, and developmental levels of students?
Section III: Unit Assessments
List and describe the key unit assessments. A copy of each must be included in the attachments. Reflect on the assessments including: Why were these assessments selected? What accommodations, if any, may be needed to meet the needs of your students?

Section IV: Attachments
Include your assessments, WWW lesson plan, TCM/MTMS lesson plan, literature connection, and interview reflection as evidence.


Presentation
TCs will create an presentation that outlines the Unit Work Sample including all major sections and a discussion of their reflection.

Presentation: EXAM DAY

Participation and Attendance
There will be a number of warm ups, discussions, and activities TCs will be expected to participate in and/or complete. For completed assignments indicated on the tentative daily schedule, a point will be earned.

Participation points will be deducted for cell phone use in class and disrespectful conduct. If an emergency, TCs may be excused to the hallway to talk or text. Otherwise, I should not see fingers typing on phones underneath tables.

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.

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/. 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.
Evaluation
It will be possible to earn 175 points during the semester. They will be distributed as follows:
- Participation (Completed CW & HW) 14 points total (8%)
- Literature Connection 10 points (~6%)
- Clinical Interview 25 points (14% +)
- WWW Lesson Plan Project 25 points (14% +)
- Shared TCM/MTMS Lesson 25 points (14% +)
- Tests (2) 15 points total (17% +)
- Reading Reflections and Focus Questions (8) 2 points each, 16 points total (8.5% +)
- Unit Work Sample Final Project 30 points (17% +)

Evaluation Scale

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<td><strong>Percentage Range</strong></td>
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| **Letter Grades**                   | **Percentage Range**            | **Grade Points** |
| A                                   | 93-100%                         | 4.0             |
| A+                                  | 89-92%                          | 3.5             |
| B                                   | 85-88%                          | 3.0             |
| B-                                  | 81-84%                          | 2.5             |
| C                                   | 77-80%                          | 2.0             |
| C+                                  | 76-76%                          | 0               |

* A grade of 76 or below is considered a failing grade for all graduate courses. There are no grades of D in graduate courses. * There are no minus grades in graduate courses.

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 participation 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 the goal of emphasizing to students the usefulness of mathematical content. SOE V; ETC 2; SC 4

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**Teacher Education Programs: Common Core ELA and Mathematics Standards**

**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.

**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.

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**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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</thead>
</table>
| 1    | Introduction  
1/15  
Mathematical proficiency  
Standards and standards-based teaching  
Explanation of Cultural Artifact HW  
Course overview and goals | Skim VDW Chs. 1 & 2  
Read Common Core State Standards Initiative (2010). Common Core State Standards for Mathematics |
| 2    | Warm up: Share cultural artifacts*  
1/22  
Snowman activity*  
Problem solving and problem-based classroom (Ch. 3 & Ch. 4)  
Lesson planning: Beginnings  
Explanation of TCM & MTMS Shared Lesson | Read VDW Chs. 3 & 4 (RR 1)  
Cultural Artifact HW |
| 3    | Equity and accessibility: early finishers and gifted and talented, struggling, SPED, ELL, and culturally diverse  
1/29  
Cultural/historical integration*: Using history and culture to make learning relevant; relates to issues of equity and accessibility  
Technology: Explore Illuminations  
Explanation of WWW Lesson Plan (15 min)  
If time: Learning styles video (relates to individual differences) | Read VDW Chs. 6 & Skim 7; Read assigned articles posted to OAKS related to “addressing individual needs” (RR 2)  
Suggestion: Review TCM & MTMS to find Shared LP Activity |
| 4    | Warm up: Snowman assessment  
2/5  
Assessment (Ch. 5): Timed tests, rubrics, analyzing student errors*, Smarter Balanced Assessment Consortium  
Clinical Interview Practice  
Explanation of Clinical Interview  
Problem structures and basic facts (+ and -)* | Read VDW Chs. 5; VDW Ch. 9 (Stop at “Teaching Multiplication and Division”); (RR 3)  
WWW drafts due to discussion board by 4 PM |
| 5    | Problem structures and basic facts (x and /)*  
2/12  
Place value & Base-Tens  
Show students their content area for JIGSAW (5 min)  
Number & Operations Lesson Rotation (15 min each) | Read remainder of VDW Ch. 9, SKIM VDW Ch. 10, SKIM VDW Ch 11, and “Place Value: Problem Solving and Written Assessment” (RR 4)  
WWW peer feedback to 3 other plans due by 4 PM today to discussion board  
Number & Operations Shared TCM & MTMS Lessons |
| 6    | WWW online sources displayed on tablets or laptops – TCs rotate through the class and look at all of the different sites (30 min)  
2/19  
Multi-digit number concepts  
Computation and estimation for whole numbers  
Jigsaw Activity Part I* (10 min)  
Jigsaw Part II (80 min) | Read & take notes on readings for Jigsaw  
WWW Final Project Due  
Be prepared to share WWW projects on personal tablet or laptop |
| 7    | Test 1 (60 min)  
2/26  
Whole-class fractions  
Fraction Lesson Rotations (15 min each) | Study for Test 1  
Read VDW Chs. 15 & 16 (RR 5)  
Fractions Shared TCM & MTMS Lessons |
| 3/5  | Spring Break | Be safe! Have fun! |
| 8    | No Class Meeting  
3/12  
(I will be presenting at NSTA Chicago) | Clinical Interview Assignment Due  
Read VDW Ch. 17 and article (Part of RR 6) |
<table>
<thead>
<tr>
<th>Date</th>
<th>Activities</th>
<th>Notes</th>
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<tbody>
<tr>
<td>3/19</td>
<td>Share and discuss findings from Interview Assignment</td>
<td>Praxis HW*</td>
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<td>Decimals, Integers and Percent</td>
<td>Read VDW Ch.18 (RR 6 – includes week 8)</td>
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<td>Decimals and Percent Centers debrief</td>
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<td>3/26</td>
<td>Algebraic Thinking* (Ch. 14)</td>
<td>Read VDW Ch. 14 (RR 7)</td>
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<td>Algebra Lesson Rotation (15 min each)</td>
<td>Algebra Shared TCM &amp; MTMS Lessons</td>
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<td>4/2</td>
<td>Warm up: Share literature connection ideas* (30 min)</td>
<td>Literature Connection HW</td>
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<td>Geometry &amp; Measurement Centers (Chs. 19 &amp; 20)</td>
<td>Read Ch. 20 and The van Hiele model of thinking in geometry among adolescents (Part of RR 8)</td>
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<td>Geometry Lesson Rotation (15 min each)</td>
<td>Geometry Shared TCM &amp; MTMS Lessons</td>
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<td>4/9</td>
<td>Warm Up: What is a trianquad? (15 min)</td>
<td>Read Ch. 19 (RR 8 – includes week 11)</td>
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<td>Finish Geo &amp; Measurement Centers* and debrief (45 min)</td>
<td>Measurement Shared TCM &amp; MTMS Lessons</td>
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<td>Measurement Lesson Rotation (15 min each)</td>
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<td>Conclude geometry &amp; measurement: Trapezoid activity and more, if time</td>
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<td>4/16</td>
<td>Data Analysis &amp; Probability notes and activities*</td>
<td>Skim VDW Chs. 21 &amp; 22</td>
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<td>(Ch. 21) (45 min)</td>
<td>Data analysis Shared TCM &amp; MTMS Lessons</td>
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<td>DA &amp; Prob Lesson Rotation (15 min each)</td>
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<td>4/23</td>
<td>Test 2 (1 hour)</td>
<td>Study for Test 2</td>
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<td>Work and Feedback on Unit Work Sample</td>
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<tr>
<td>EXAM</td>
<td>Unit Work Sample Presentations (whole class)</td>
<td>Unit Work Sample Due</td>
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<tr>
<td>TBA</td>
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<td>Presentation</td>
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