COLLEGE OF CHARLESTON EDEE 366-01: Teaching Mathematics Grades 2-8 Wednesday, 12:00-2:45 pm, ECTR 215 Spring 2013

| Instructor: | Sarah M. Davis, Ph.D. | | |
|----------------------|--|--|--|
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| | phone. | | |
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| Office Hours: | M: 1:00-3:00 T: 10:00-12:00 | | |
| Instructor: | Sarah M. Davis, Ph.D. | | |
| Office: | School of Education, Health, and Human Performance, Room 232 | | |

Course Description:

This course focuses on the knowledge, dispositions, and performances necessary for quality elementary 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:

Van de Walle, J.A., Karp, K.S., & Bay-Williams, J.M. (2010). *Elementary and middle school mathematics: Teaching developmentally* (7th edition). Boston, MA: Allyn & Bacon.

Recommended Text:

Math at hand: A mathematics handbook. (1998). Great Source Education Group Staff ISBN: 0069508179 Used copies available online for about \$3.00 (good resource, but not drawn on in class)

National Council of Teachers of Mathematics (NCTM). (2000). *Principles and standards for school mathematics*. Reston, VA: Author.

✤ Available online at <u>www.nctm.org</u>

Carpenter, T.P., Fennema, E., Franke, M.L., Levi, L., Empson, S.B. (1999). Children's Mathematics: Cognitively Guided Instruction.

Carpenter, T.P., Franke, M.L., & Levi, L. (2003). *Thinking mathematically: Integrating arithmetic and algebra in the elementary school*. Portsmouth, NH: Heinemann.

Class Supplies:

South Carolina Mathematics Standards 2-8 (online: <u>http://ed.sc.gov/agency/se/Teacher-Effectiveness/Standards-and-Curriculum/Mathematics.cfm</u>)

Common Core Standards for mathematics 2-8 (online http://www.corestandards.org/Math)

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

SC site aligning SC Standards with Common Core Standards (online <u>http://ed.sc.gov/agency/se/Teacher-Effectiveness/Standards-and-Curriculum/ELAandMathematicsCrosswalks.cfm</u>)

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*

<u>Utilization of Computer Applications</u> (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 – excluding classwork assignments and comprehension checks - will receive a FIVE-PERCENT deduction per day that it is late. Classwork assignments assignments and comprehension checks will not be accepted 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.

WWW Lesson Plan

TCs will choose a website that has value for teaching mathematics. TCs will have 3-5 minutes to tell about their site using the classroom computer. The purpose of this project is to integrate technology (in this case the World Wide Web) into the development of worthwhile tasks for teaching mathematics.

Specifically, TCs are to construct one lesson based on one WWW site. 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. 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 following criteria:

1. **Provide a paragraph description of why the WWW resource was selected. Tell how the lesson will fit into a larger unit.** For example, TCs may be using weather data to form graphs that are part of a larger unit on graphing skills. TCs would specify some of the graphing skills that had already been taught and how the WWW-based lessons build on those skills.

2. **Provide a lesson plan that is standards based**. 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.

Presentation & Hard copy Due: Week 5 (2/6)

Revised Electronic Copy Due to PBWorks: Week 7 (2/20)

Note: Given that this is the first lesson plan, TCs may be able to earn half of their points back based on the revision.

Grading criteria and lesson-plan template on OAKS

BrainPop.com Assignment

http://www.brainpop.com/math/

TCs will sign up for a TRIAL version of BrainPop (expires within 5 days of activation). Each TC will be expected to watch 5 math videos (Number Sense, Measurement, Geometry, Fractions and one additional), take online quizzes, score at least 80% **and print out quiz results**. All quizzes are due at the same time.

BrainPop quizzes due IN CLASS Due: Week 9 (3/13)

Cultural Artifact Review OR Historical Integration Book

OPTION 1: Cultural Artifact Review (INDIVIDUAL)

The cultural artifact review will consist of the following:

- 1. Cultural artifact: a copy of a comic, speech, quotation, video transcript (with link to video if online), etc.
- 2. Summary of the cultural influence of the piece (where it came from, author, importance, influence)
- 3. Speculation of its potential negative and/or positive impact on (1) students' views towards their mathematical abilities or (2) the necessity of learning mathematics.
- 4. Include a citation from research on how culture influences student's learning/motivation to support your speculation.
- * Mechanics and professional appearance of the review count in the awarding of points.

* Several will be chosen to share with the class.

Hard Copy Due: Week 10 (3/20) Grading criteria on OAKS

<u>OPTION 2: Historical Integration Book</u>: GROUP PROJECT (minimum of 3 per group; maximum of 5 per group) TCs choose a grade level for which to create a class book. Each TC in the group will develop a page for the class book. The theme of the book will be mathematics as it relates to an important site in Charleston.

TCs will select a site in Charleston. The following need to be included on EACH TC's book page:

- 1. A picture of the site in Charleston or surrounding area
- 2. A synthesized paragraph of historical or important information about the site with references
- 3. A mathematics problem that relates to the picture or site with answer
- 4. A SC standard for the activity cited at the bottom of the page
- 5. A CC standard for the activity cited at the bottom of the page
- 6. The TC's name that created the book page at the bottom of the page

Hard Copy of Bound Book Due: Week 10 (3/20) Grading criteria on OAKS

Literature Book Bag Project

A wealth of children's literature exists that illustrates mathematical concepts. TCs will select and bring to class three books that may be used to supplement mathematics instruction. TCs will provide classmates with a third-page summary for each book including the title, author, publisher, a synopsis, SC standard, CC standard, picture of cover of book, and ideas for when and how each book might be used to teach mathematical concepts.

Additionally, TCs select one book and align it with a SC & CC mathematics standard. Develop and write up ONE activity that will be sent home for students or parents to do with their child along with a children's literature book. The book bag will need to include the following parts:

- 1. A bag/briefcase to put <u>all</u> of the materials needed to complete the activity
- 2. A children's literature book related to math content and standard (it can be one of the three already described)
- 3. A parent letter explaining activity to parents in detail or instruction sheet for students
- 4. An assessment for student to accompany activity (worksheet);
- 5. A teacher page listing standards, objectives, and including a rubric for how student sheets will be graded
- 6. Manipulatives or supplies needed to perform the activity

www.mrsvandyke.com/bookbags.htm & http://www.mathcats.com/grownupcats/ideabankmathandliterature.html

Physical Project presented/given to me IN CLASS Due: Week 11 (3/27) Revised book bag project due to PBWorks (make sure to accompany the electronic copy with a full list of necessary materials): Week 13 (4/10) Grading criteria on OAKS

Curriculum assignment

TCs will analyze mathematics curriculum. Questions to consider when reviewing curriculum are provided below. More details to come related to this assignment.

Questions 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?)

Do the tasks lend themselves well to the use of appropriate tools?

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 South Carolina and Common Core mathematics standards listed and ACCURATELY aligned? 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?

Hard Copies Due: Week 13 (4/10) Grading criteria on OAKS

Quizzes

TCs will be expected to complete three in-class quizzes. 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, SC, and Common Core Standards. (Quiz dates are indicated on the schedule.)

Reading Comprehension Checks

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.

The comprehension checks will be given at **the beginning of the class** indicated on the daily schedule. Typically the checks will be similar to the **Writing to Learn** questions at the end of the chapter. There will be **a check for each** of the assigned chapters for the given week. **TCs may use notes but not the text** in answering the comprehension checks. TCs will only have a few minutes to answer these checks, so should be fully prepared to

provide thorough succinct responses. If late to class or not in class the day of a check, TCs will not receive credit for the assignment.

<u>Teaching Children Mathematics (TCM)</u> and <u>Mathematics Teaching in the Middle School (MTMS)</u>: 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 elementaryschool teachers and upper-elementary/middle-grades teachers, respectively. The journals contain many articles with ideas that are directly applicable to the classroom. Journals are available for review **online ONLY for NCTM members (this does NOT include the 100-day free trial membership**). TCs may join NCTM online at <u>http://www.nctm.org/membership/content.aspx?id=7618</u>. If TCs decide not to join NCTM, they must access the journals (past 1994) **by going to the library**. The objective in having TCs look at the journals is to help them gain familiarity with them as resources for teaching elementary and middle-grades mathematics.

TCs are to find an activity in *TCM* or *MTMS* (nothing older than 2005) that fits their assigned content area and grade level. They are to write a complete lesson plan using this activity. The lesson plan should follow the EHHP lesson plan format provided on OAKS. They should also write a brief explanation on why they chose this article and its activity to share with their classmates. TCs will provide a hard copy to me and an electronic copy submitted to PBWorks of the detailed lesson plan (including standards alignment, procedures, materials, SOURCES, etc.), short explanation of why activity was chosen and if it was a good activity, and master copies on the date indicated on the schedule. On the day that TCs are required to have these materials, they 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. For the first lesson, they will have fifteen minutes per group (three groups total – 2-3, 4-5, and 6-8) to go over the lesson implementation. For the second group lesson, they will have 25 minutes to demonstrate to the entire class.

Upon choosing their article and activity, TCs should let me know – on the article sign up sheet. There are **to be no** duplicates in activities. I will carry the article sign up with me each class for TCs to review if needed. Additionally, **I must approve the lesson plan** a week prior to the presentation date.

Hard Copy Due A WEEK BEFORE PRESENTING IN CLASS to get my approval Presentations to PEERS in class & Revised Electronic Copy of Lesson Plan Due to PBWorks date indicated on daily schedule Lesson Plan Template on OAKS

SUGGESTION: I have set up the course assignments so that TCs are to share lessons with one another. They 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 to look on the PBWorks site for activities.

Participation and Attendance

During class, there will be a number of warm ups, discussions, activities, etc. TCs will be expected to participate in these. For every class attended AND participated in, one point will be earned (14 points maximum). For completed assignments indicated with an asterisk on the tentative daily schedule, an additional two participation points will be earned (8 assignments = 16 points maximum).

Participation points are deducted for cell phone use in class and disrespectful conduct. If an emergency, TAs 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. Writing Lab is located on the first floor of Addlestone Library (Monday through Thursday 9:00 am to 9:00 pm and Friday 9:00 am to noon). 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 250 points during the semester. They will be distributed as follows:

| Participation and Attendance | 30 points (12%) |
|--|------------------------------------|
| W W W Project | 25 points(10%) |
| Literature Connection (Deals Dec Activity) | 15 points (6%) |
| DrainDon In Ovigges | 25 points (10%) |
| Curriculum Assignment | 20 points (8%) |
| Ouizzes (3) | 10 points each $=$ 30 points (12%) |
| Comprehension Checks (8 Total) | 5 points each = 40 points (12%) |
| Shared TCM/MTMS Lesson (2) | 25 points each (10% each) |

Evaluation Scale

| Letter Grades | Percentage Range | Grade Points |
|---------------|------------------|--------------|
| А | 93-100% | 4.0 |
| A- | 91-92% | 3.7 |
| B+ | 89-90% | 3.3 |
| В | 86-88% | 3.0 |
| B- | 84-85% | 2.7 |
| C+ | 82-83% | 2.3 |
| С | 79-81% | 2.0 |
| C- | 77-78% | 1.7 |
| D+ | 75-76% | 1.3 |
| D | 72-74% | 1.0 |
| D- | 70-71% | 0.7 |
| F | 0-69% | 0.0 |

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 <u>http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php</u>

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 & 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)
- 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
- 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

TEACHER EDUCATION PROGRAMS: COMMON CORE ELA AND MATHEMATICS 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

Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
 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.

| Date | Торіс | Readings & Assignments to be completed | |
|------|---|---|--|
| | | for the given class | |
| 1/9 | ✤ Warm Up: Gender article & Math problem | ✤ Read Chs. 1 & 2 | |
| | ✤ Course overview | | |
| | Introduction to 2-8 mathematics | | |
| | Standards and standards-based teaching (Ch. 1) | | |
| | ✤ Doing mathematics (Ch. 2) | | |
| | Paper tearing activity | | |
| | Explanation of TWO Shared LPs | | |
| | Spiral Activity (if time) | | |
| 1/16 | ✤ Comprehension Check #1 (CC #1) (15 min) | Read Chs. 3 & 4 (Be prepared for CC #1 | |
| | Warm Up: Math Problems/Exercises | based on WTL questions) | |
| | Problem solving and problem-based classroom (Ch. 3) | | |
| | & Ch. 4) | | |
| | ✤ Lesson planning (Ch. 4) | | |
| | If time, Learning style video | | |
| | If time, Snowman Activity | | |
| 1/23 | Meet in library (Room TBA) | Read Chs. 6 & 7 (Be prepared for CC #2) | |
| | ◆ CC #2 (15 min) | Lesson planning notes* | |
| | Lesson planning continued | | |
| | Technology integration (Ch. 7) | | |
| | Explanation of WWW Lesson Plan (15 min) | | |
| 1/30 | Quiz #1 (30 minutes) | Study for Quiz #1 | |
| | Warm Up: Thoughts on Dyscalculia, discuss Ch. 5 | Read Chs. 5& 8 (We will talk about Ch. 8 | |
| | WTL ?s*, and Math problems (25 min) | next class) | |
| | Timed-Test Activity | Be prepared to discuss Ch. 5 WTL | |
| | Assessment (Ch. 5) | questions* | |
| | Explanation of Cultural Artifact Project (10 min) | Read Dyscalculia Info. | |
| | EEDA Career Awareness Activity | Review TCM to find Shared LP Activity | |
| 2/6 | ◆ CC #3 (15 min) | ♦ WWW Lesson Plan | |
| | Number Sense, Meaning of Operations, & Fact | $\bullet \text{Read Chs. 9 \& 10 (Be ready for CC #3)}$ | |
| | Mastery (Chs. 8, 9, & 10) (60 min) – Activity Zones* | | |
| | Present W W W Lesson Plans (60 minutes – 3 min | | |
| | each) | | |
| 0/10 | Closure: Math Problems/Exercises (15 min) | | |
| 2/13 | $\bullet \text{CC #4 (15 min)}$ | $\begin{array}{c} \bullet \text{Read Ch. 11 & 12 (Be ready for CC #4)} \\ \bullet \text{SUP} \text{CL} 12 \\ \end{array}$ | |
| | • Number & Operations Lesson Rotation (15 min each | $ \mathbf{\dot{\mathbf{x}}} \mathbf{Skim} \mathbf{Ch}. 13 $ | |
| | 45 min) | N & O Shared TCM Lessons Dood Examples with swatter article | |
| | ✓ JIgsaw Part I. Prace Value and Strategies for whole Numbers & Computational Estimation (Cha. 11, 12) | Kead Everyddy mainemailes article | |
| | Numbers & Computational Estimation (Cns. 11, 12, 12) (45 min) | | |
| | | | |
| | ✓ Explanation of Enerature Bag Project (15 min) ▲ Closure (15 min) | | |
| 2/20 | $\leftarrow CC \#5 (10 \min)$ | • Pood Cho 12 & 14 (Po ready for CC #5) | |
| 2/20 | $\stackrel{\bullet}{\leftarrow} \text{ Liggary Dart II* (50 min - 12 min par group)}$ | Read Clis. 15 & 14 (Be leady 101 CC #3) A papered for Ligrany Dart II | |
| | 1 Jigsaw Fait II (30 min) - 12 min per group) 1 | Algebra Shared Lessens | |
| | ▲ Algebraic Thinking (Ch. 14) (25 min) | Algebra Shared Lessons Post revised WWW Lesson Dian due to | |
| | ▲ Algebra Lasson Potations (45 min) | Post revised w w w Lesson Fian due to | |
| | | | |
| 2/27 | ◆ Ouiz #2 (45 min) | ★ Read Chs. 15 & 16 (WTL questions | |
| | Fractions (Chs. 15 & 16) – Activity zones* (60 min) | embedded into quiz – NO NOTES | |
| | Explanation of Historical Integration Project (15 min) | PERMITTED) | |
| | Explanation of BrainPop Quizzes (10 min) | Study for Quiz #2 | |

| | * | Catch up!!! | | |
|------|----------|--|----------|---|
| 3/6 | * | Spring Break | * | BE SAFE! HAVE FUN! |
| 3/13 | * | Level 5 Fraction Unit Facilitated by Karen Reed: | * | Read Ch. 17 |
| | | Treasures from the Attic | * | BrainPop Quizzes due |
| 3/20 | * | Level 5 Fractions Unit: Treasures from the Attic | * | Read Ch. 18 |
| | | continued | * | Historical integration or Cultural artifact |
| | | | | due |
| 3/27 | * | CC #6 (15 min) | * | Be ready for CC #6 (Chs. 17 &18) |
| | * | Literature Bag Presentations (60 min) | * | Literature Bag Project due |
| | * | Decimals, percents, and proportional reasoning | | |
| | | stations activities/problems* (45 min) | | |
| | * | Directions for curriculum assignment (15 min) | | |
| 4/3 | * | CC #7 (15 min) | * | Attempt Praxis problem |
| | * | Warm Up: Score Praxis answers* (10 min) | * | Read Chs. 19 & 20 (Be ready for CC #7) |
| | * | Curriculum assignment work session (35 min) | * | |
| | * | Geometry & Measurement (Chs. 19 & 20) (90 min) - | | |
| | | Activity centers | | |
| 4/10 | * | Warm Up: Trianquad (10 min) | * | Curriculum assignment due |
| | * | Go over answers to Geometry/Measurement activity | * | Geometry Shared Lessons |
| | | centers as class (20 min)* | * | Measurement Shared Lessons |
| | * | Geometry Lesson Rotation (45 min) | * | Group Lesson Plan Due |
| | * | Measurement Lesson Rotations (45 min) | * | Revised Literature Bag Project due to |
| | <u> </u> | | <u> </u> | PBWorks |
| 4/17 | * | Quiz #3 (30 min) | * | Read Chs. 21 & 22 (Be ready for CC #8) |
| | * | CC #8 (15 min) | * | Study for Quiz #3 |
| | * | Warm Up: Math Problems/Exercises (10 min) | * | DA & Prob Shared Lessons |
| | * | Data Analysis & Probability (40 min) | | |
| | * | DA & Prob Lesson Rotation (45 min) | | |
| | * | Student evaluations (10 min) | | |
| EXAM | * | Group Shared Lessons | * | 6 groups; 25 minutes each |
| DAY | | | | |

*Each of these items is worth 2 participation points in addition to the daily participation/attendance point earned per class