COURSE TITLE: Teaching Elementary School Math
COURSE NUMBER: MAE 4310

COURSE DESCRIPTION (with prerequisites):
This course is designed to provide students with the methodology requisite to effective mathematics teaching in the elementary school classroom. The course centers on using mathematics content knowledge and process skills in the development of effective instructional strategies for the elementary level learner. The primary focus of the course will be to develop pedagogical content knowledge as it relates to elementary mathematics teaching. Experiences such as working with computers, manipulatives, and calculators; problem solving activities; cooperative learning experiences; and discussion of topics related to elementary mathematics all contribute to the development of the professional teacher. This course addresses specific Sunshine State Standards, subject matter competencies and pedagogy pertinent to the discipline and required for certification.

10 hours of observation and/or participation with K – 6 students. 3 semester hours.

NAME(S) OF INSTRUCTORS:
Dr. Lou Cleveland

EFFECTIVE ACADEMIC YEAR:
2012-13

REQUIRED TEXTBOOKS AND INSTRUCTIONAL SUPPLIES:
SUGGESTED TEXTBOOKS:

Hands-On Standards, Deluxe Editions (PreK - K, 1 - 2, 3 - 4, 5 - 6), ETA Cuisenaire, ETA/Cuisenaire, 2006

Course Evaluation Criteria:
Test 1 (on history and Focal Points) - - - 6 %
Test on teaching grades 1 – 2 – 6 %
Test on teaching grades 3 – 4 – 6 %
Test on teaching grades 5 – 6 – 6%
Reading and Mathematics assignment – 6%
Tasks – 60%*
Participation and attendance – 10%
Tasks must meet the criteria for “demonstrated” as determined by the scoring rubric to earn credit for this course.

A task judged as “partially demonstrated” or “not demonstrated” may be resubmitted for the purpose of demonstrating the accomplished practice indicator. The original grade will be used when calculating the course average. Points will not be deducted or added for resubmission.

No grade will be given for the course until all tasks have been successfully demonstrated.

GRADING POLICY:
The standing of a student in each course is expressed by one of the following letters and corresponding grading system:

- **A** – 90 – 100
- **B** – 80 – 89
- **C** – 70 – 79
- **D** – 60 – 69
- **F** – 59 or less

The Chipola Catalog provides policies and procedures regarding the grading system. A student’s Grade Point Average is derived from the grading system/quality point scale.

ATTENDANCE AND WITHDRAWAL POLICIES:
Chipola College expects regular attendance of all students. Students who are absent from classes for any reason other than official college activities must satisfy the instructor concerned that the absence was due to illness or other clearly unavoidable reasons. Otherwise, the student may suffer grade loss at the discretion of the instructor. Chipola policy allows each instructor to specify in the Instructor First Day Handout whether or not an absence is excusable and what affect the absence or tardy may have on the grade.

A student is allowed to repeat a course a maximum of three (3) times. **On the third attempt a student (1) must bear the full cost of instruction (unless waived by Student Services), (2) cannot withdraw, and (3) must receive a grade.**

MAKE-UP POLICY:
Chipola allows each instructor to specify in the Instructor First Day Handout the makeup policy.

ACADEMIC HONOR CODE POLICY:
Students are expected to uphold the Academic Honor Code. Chipola College’s Honor Code is based on the premise that each student has the responsibility to (1) uphold the highest standards of academic honesty in his/her own work; (2) refuse to tolerate academic dishonesty in the college community; and (3) foster a high sense of honor and social responsibility on the part of students. Further information regarding the Academic Honor Code may be found in the Chipola Catalog, Student Governance section.
STUDENTS WITH DISABILITIES POLICY:
Chipola College is committed to making all programs and facilities accessible to anyone with a disability. Chipola’s goal is for students to obtain maximum benefit from their educational experience and to effectively transition into the college environment. Students with disabilities are requested to voluntarily contact the Office of Students with Disabilities to complete the intake process and determine their eligibility for reasonable accommodations.

LIBRARY AND ON-LINE REFERENCE MATERIALS:
The library is a comprehensive learning resource center providing information in print, electronic, and multimedia format to support the educational objectives of the College. On-line catalogs, e-books and electronic databases can be accessed by using the LINCCWeb icon on the Chipola Library website at www.chipola.edu/library. If you have questions about database usage consult the “How to Use the Chipola Databases” on the Library website or call the Library at 850/718-2274 during regular hours. Library hours are posted each semester at the building entrance and on the Library website. See your Instructor First Day Handout for individual instructor recommendations and resources.

TECHNOLOGY RESOURCES:
The Information Technology Center, located in the library, is equipped with computer workstations. Lab hours are posted each semester at the building entrance and on the Library website. The ACE Lab, located in Building L, is available for tutoring and is equipped with computer workstations. Lab hours are posted each semester at the room entrance. The college’s learning management system is Desire 2 Learn (d2l). Classes become available on d2l on the first day of the semester. It is the student’s responsibility to log onto the d2l system the first day of class to establish the first day of attendance and to check announcements. For further information, contact your instructor or the Director of Online Learning.

ELECTRONIC DEVICE USAGE:
All electronic devices such as cell phones, beepers, pagers, and related devices are to be silenced prior to entering classrooms and/or laboratories to avoid disruption. Should it become necessary for a student to leave his/her “device” on to send or receive an emergency call and/or text message, the student must inform the instructor prior to class. If the student finds it necessary to send and/or receive an emergency call and/or text message during class/lab time, he/she is instructed to take all books and belongings and step outside the classroom to deal with the situation. To minimize classroom disruption and the distraction to classmates, the student will not be permitted to reenter the classroom during that class period. Any time a test is being administered, all such devices must be turned off and put away. If a device is seen or heard during an exam, a score of zero will be given for that exam. Initial and repeated infractions may result in disciplinary action.
DISCIPLINE SPECIFIC COMPETENCIES / LEARNING OUTCOMES:

Students enrolled in MAE 4310 will be required to demonstrate the following:

1. Students will participate in classroom discussions where pertinent mathematics education issues will be addressed.

2. Students will demonstrate and use problem-solving techniques while working in-groups with their peers.

3. Students will solve and explain mathematics problems and exercises to their peers.

4. Students will complete special assignments that address key issues in mathematics education.

5. Students will increase and apply knowledge and skills in the Sunshine State Standards relevant to mathematics.

6. The student will increase and apply knowledge and skills in the uniform core curriculum relevant to this content area: teaching strategies to meet the needs of diverse learning populations, classroom management.

Tasks

1. Task CC10M (FEAP 1.1, 1.3, 1.4, 1.6): The student will compile a portfolio that contains lesson plans (written in the Chipola lesson plan format) that utilize community resources such as parks, labs, industries; children’s literature; manipulatives and/or technology to provide age appropriate mathematics instruction to students in grades PREK – K, 1-2, 3-4, and 5– 6.

2. Task 2.2.1 (FEAP 2.1, 2.2, 2.3, 2.5, 3.1, 3.3, 3.4, 3.6, 3.7, 3.9, 3.10, 5.1) - The teacher candidate has three 15-30-minute lessons videotaped or observed by an instructor, evaluates his/her performance, and obtains an external evaluation from a peer or the mentor on each lesson. The product is the set of three self-assessments (one of which must be typed), three peer/mentor assessments and the teacher candidate’s summary of what he/she has learned.

3. Task 5.4.2 (FEAP 2.3, 2.4, 2.5, 2.6, 2.8, 2.9, 3.8) - The teacher plans a lesson for a class containing diverse students. The teacher is observed to determine effectiveness of instruction with a diverse student population. This observation targets sensitivity, equitable treatment, and planning for students from different backgrounds, cultures, and skill levels.

4. Task CC8M (FEAP 5.4): The teacher candidate is tested on knowledge of the content he/she will be expected to teach. Tests may be in the form of readiness
tests or post-tests (including quizzes, unit tests, and/or semester exams). Testing strategies will vary by instructor; however, each instructor will sample the content to determine if the candidate has the knowledge needed to teach the mathematics content standards, as articulated in the Elementary Education K – 6 subject area examination of the Competencies and Skills, Fourteenth Edition. (Students who have passed the FTCE Elementary Subject Area Examination are exempted from this task.)

<table>
<thead>
<tr>
<th>COURSE-LEVEL STUDENT LEARNING OUTCOMES FOR MAE 4310</th>
<th>NAT’L COUNCIL OF TEACHERS OF MATH (NCTM) NGSSS – FOCAL POINTS; COMMON CORE STANDARDS</th>
<th>FLORIDA COMPETENCIES AND SKILLS – PROFESSIONAL EDUCATION (PE)</th>
<th>CONTENT STANDARDS</th>
<th>FLORIDA EDUCATOR ACCOMPLISHED PRACTICES (FEAPs)</th>
<th>ASSESSMENT MEASURES</th>
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</thead>
<tbody>
<tr>
<td>Math as a Process</td>
<td>All Standards</td>
<td>P.E.- 7.1, 7.2, 7.4, 13.1, 13.2</td>
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<td>Learning Theories and Psychology in Mathematics Education</td>
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<td>Curricular Models</td>
<td>All Standards</td>
<td>P.E.- 12.1, 12.2, 12.3, 12.4</td>
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<td>Implementing a Course of Study</td>
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<td>P.E. – 8.2, 8.3</td>
<td>10.6</td>
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<td>Planning for Instruction</td>
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<td>P.E. – 8.2, 10.1, 10.2, 10.3</td>
<td>8.1</td>
<td>Task CC10M</td>
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<tr>
<td>Teaching Tools and Strategies</td>
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<td>P.E.- 2.1, 2.2, 2.3, 2.4, 9.1, 2.9.3 –</td>
<td>1.2.2, 1.3.2, 1.3.3, 1.1, 1.3, 1.4, 1.6</td>
<td>Task CC10M</td>
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<td>Teaching Specific Mathematics Content in PreK - K</td>
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<td>KG</td>
<td>Common Core Standards</td>
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<td>Grades 3 and 4</td>
<td>Common Core Standards</td>
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MEANS OF ACCOMPLISHING STUDENT LEARNING OUTCOMES:

Methods of instruction: Lecture, Class discussions and/or interactions, Large and/or small group projects, activities, discussions, etc., Read and report on professional education and subject matter articles, research, and other materials, Oral presentations, Clinical experiences and reflective papers, field journals, and discussions about them, Portfolios, Videotaping of student teaching a lesson with feedback from instructor and students.

Course Objectives:

The student will increase knowledge and understanding of the following:

1. Knowledge of the major goals and characteristics, including scope and sequence, of elementary school mathematics programs, and aspects of theories of learning as applied to the planning and instruction for the teaching of elementary school mathematics.

2. Knowledge of the current developments in education, including research, that may affect the elementary school mathematics curriculum.

4. Knowledge of measurement concepts and principles and their application in the teaching of elementary school mathematics.

5. Knowledge of concepts and principles of probability and statistics and their application in the teaching of elementary school mathematics.


ASSIGNMENT AND/OR COURSE OUTLINE

See your Instructor First Day Handout for individual instructor assignment schedule.