CHIPOLA COLLEGE

COURSE SYLLABUS

Chipola's website: www.chipola.edu

COURSE TITLE: Teaching Methods in Middle School Mathematics

COURSE NUMBER: MAE 3320

COURSE DESCRIPTION (with prerequisites):

This course is designed for students who are majoring in mathematics education and who will be obtaining teacher certification in grades 5-9 or 6-12. In this course students learn principles of effective curriculum design and assessment and apply these principles by designing and developing interactive mathematics curriculum projects for middle school students. This course is offered concurrently with MAE 3940, a one credit hour practicum in which students present their projects in middle school classroom environments. This course addresses specific state-adopted standards, subject matter competencies, pedagogy pertinent to the discipline and required for certification. 10 hours of teaching are required. Corequisite: MAE 3940 or consent of the Education Department. 3 semesters hours credit.

NAME(S) OF INSTRUCTORS:

Dr. Rose Cavin
Office: O109B
Contact: 850.718.2325, cavinr@chipola.edu

EFFECTIVE ACADEMIC YEAR:

2015-2016

REQUIRED TEXTBOOKS AND INSTRUCTIONAL SUPPLIES:

Reading material will be provided by the instructor.

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 college's learning management system is **Canvas**. Classes become available on Canvas on the first day of the semester. It is the student's responsibility to log onto the Canvas system the first day of class to establish the first day of attendance and to check announcements. All official class communication must be through Canvas. For further information, contact your instructor or the Director of eLearning. The Canvas

support hotline is available online in live chat and on the phone, toll-free, at 855-308-2812 for any issues in accessing or utilizing Canvas. 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.

FREE TUTORING RESOURCES:

The Academic Center for Excellence (**ACE)** Lab, located in Building L, offers free tutoring from 8 a.m. to 5 p.m. and is equipped with computer workstations. ACE lab hours are posted each semester at the room entrance and on the website. Additionally, Chipola College has contracted **Smarthinking**, a Pearson Company, for online tutoring services, accessible especially from 5 p.m. to 8 a.m. and weekends. Smarthinking can be accessed through Canvas.

ELECTRONIC DEVICE USAGE STATEMENT:

Classrooms should be free of all unnecessary distractions from the task of learning. Therefore, as a general rule, students should silence and avoid use of all electronic devices (laptops, phones, tablets, etc.) not being used for coursework. Consult first-day handouts for any specific policies related to the use of electronic devices in the classroom, as they may vary depending upon the nature of the course or the guidelines of the instructor. Faculty reserve the right to regulate the use of electronic devices and their accessories in class.

DISCIPLINE SPECIFIC COMPETENCIES / LEARNING OUTCOMES:

E – 1 Demonstrate understanding of instructional design and lesson planning by applying concepts from human development and learning theories.

E – 2 Demonstrate ability to maintain a student-centered learning environment that is safe, organized, equitable, flexible, inclusive and collaborative.

E – 3 Demonstrate effective instructional delivery and facilitation by utilizing deep and comprehensive knowledge of core content.

E – 4 Demonstrate understanding of assessment by analyzing and applying data from multiple assessments to diagnose learning needs and inform instruction.

E – 5 Demonstrate continuous improvement by designing purposeful goals to strengthen instructional effectiveness and impact student learning.

E – 6 Demonstrates professional responsibility and ethical conduct and fulfills expected obligations to students, the public, and the education profession.

LINKING COURSE-LEVEL STUDENT LEARNING OUTCOMES WITH DISCIPLINE-SPECIFIC COMPETENCIES, ASSESSMENT METHODS, AND ARTIFACTS

STUDENT LEARNING OUTCOMES FOR MAE 3320 The student will:	**State Approved Standards**	**FEAPs (Discipline Outcomes)**	**FL Competencies and Skills:**		**Assessment Activities**
			Mathematics 5 - 9	**Prof Ed**	
Examine the issues related to middle years education		E-1		1.9, 2.1	T & Q

by comparing the organizational structures of middle schools, junior high schools and various of the middle school models.					
Study the intellectual, physical, socio-emotional, moral, and aesthetic development of pre- and early adolescents.		E-1			T & Q
Understand the use of State Approved Standards in teaching mathematics**.**	All Standards	E-1, E-2, E-3, E-5 1.1, 2.1, 2.2, 2.3, 2.5, 3.1, 3.3, 3.4, 3.6, 3.7, 3.9, 3.10, 5.1		1.6	4.4.1-RU 2.2.1-RU T & Q
Demonstrate proficiency in middle grades mathematics and connectivity of individual skills.	All Standards	E-1, E-2, E-3, E-5 1.2 2.1, 2.2, 2.3, 2.5, 3.1, 3.3, 3.4, 3.6, 3.7, 3.9, 3.10, 5.1, 5.5	All competencies		CC8M-RU 2.2.1-RU T & Q
Build a repertoire of effective teaching strategies, which address learning styles and developmental levels of the middle school student.		E-1, E-2, E-3, E-5 1.1, 1.3, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7,2.8, 3.1, 3.2., 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 5.1		2	4.4.1-RU 5.4.2-RU 2.2.1-RU
Effectively use technology and manipulatives to teach content.		E-1, E-6 1.1, 6.4		3.7	4.4.1-RU Teaching assignment
Create a repertoire of strategies to promote critical thinking, creative thinking, and problem solving.		E-1, E-5 1.1, 1.6,5.5		1.2	4.4.1-RU
Plan and critique grade/age appropriate mathematics lessons in	All Standards	E-1, E-2, E-3 1.1, 2.3, 2.4, 2.5, 2.6, 2.8,	All	3	4.4.1-RU 5.4.2-RU

each content area.		2.9, 3.8			
Participate in professional growth opportunities.		E-5 5.5, 5.6		5.5	CC3B-RU 2.2.1-RU
Evaluate student progress in mathematics by effective use of questioning, observation, and appropriate test construction.		E-2. E-3, E-5 2.1, 2.2, 2.3, 2.5, 3.1, 3.3, 3.4, 3.6, 3.7, 3.9, 3.10, 5.1		4.2,4.3,4.4	2.2.1-RU

****Assessment Codes**			
T = Tests **Pre/Post** = Pre- and Post-Tests **OT** = Objective Tests **UT** = Unit Tests **Q** = Quizzes **F** = Final Examination **CF** = Cumulative Final **EX** = Departmental Exam **SE** = Nat'l or State Standardized Exam	**RPT =** Report/Presentation **SP** = Skills Performance **SD** = Skills Demonstration **W** = Writing Assignments **E** = Essays **DE** = Documented Essays **RP** = Research papers **J** = Jury **R** = Recital	**Proj**. = Projects **Exp.** = Experiments **Cap. Proj.** = Capstone Project **Cap. Course** = Capstone Course **Prac.** = Practicum **Intern**. = Internship **H** = Homework **PS** = Problem Solving **DB** = Discussion Board	**BO =** Behavioral Observation **Clin.** = Clinicals **CS =** Case Study **CP =** Case Plan **Port.** = Portfolio **Obs.** = Teacher Observation **Sk. Check** = Skills Check-off Curriculum Frameworks **JP** = Judged Performance/Exhibition

MEANS OF ACCOMPLISHING STUDENT LEARNING OUTCOMES:

1. Attend and participate in class regularly.
2. Read all assigned material before class.
3. Study in-class notes and on-line materials.
4. Complete assigned projects in a timely manner to enable reflections and revisions on the final product.
5. Seek opportunities to practice teaching skills through tutoring and substituting in K – 12 schools.
6. Collaborate with peers and other professionals.

ASSIGNMENT AND/OR COURSE OUTLINE

MAE 3320 Tasks:

1. **Task 4.4.1 (FEAP 1.1, 1.3, 1.6, 6.4):** This is a critical task in which the teacher candidate collects strategies to promote critical/creative thinking and problem solving. Each strategy in the collection is described in a narrative and then incorporated into a lesson plan that is aligned with state-adopted standards at the appropriate level of rigor for grades five through nine. The lesson plans must be fully developed to provide learning experiences that require students to demonstrate a variety of applicable skills and competencies and lead to mastery of the standard(s). The product is the file of annotated strategies and lesson plans.

2. **Task 5.4.2 (FEAP 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.8):** The teacher plans, teaches and is evaluated three times by an instructor in a diverse classroom. The

teacher must differentiate instruction based on an assessment of student learning needs and recognition of individual differences in students. The product is the lesson plans, and the completed observation instruments.

3. **Task CC3B (FEAP 5.5, 5.6):** The teacher candidate works cooperatively with the Mathematics Education Facilitator to select six sessions at a content related conference or, if unable to attend the conference, to select six articles from juried journals. The teacher candidate will submit a summary on three of the six to include strategies for implementation of the knowledge and skills learned for each of the sessions or from each of the articles in the teaching and learning process and any modifications to the ideas/strategies that would increase its impact in the teaching and learning process.

4. **Task CC8M (FEAP 5.5):** The candidate completes a series of performance tasks that require specific content knowledge in the areas of algebra, geometry, measurement, data analysis and spatial reasoning. *If the student has passed the subject area exam for his/her major, then this task has been completed. For this exemption, a copy of a passing score must be recorded in the database by end of the first week of classes.*

5. **Task 2.2.1 (2.1, 2.2, 2.3, 2.5, 3.1, 3.3, 3.4, 3.6, 3.7, 3.9, 3.10, 5.1, 5.5, 6.1**) **-** The teacher candidate teaches three lessons in a 5-9 or 6-12 mathematics classroom. These three lessons are videotaped, observed and assessed by a mentor. The candidate evaluates his/her performance and engages in targeted, professional growth opportunities and reflective practices. The product is the set of three lesson plans, three self-assessments, three mentor assessments and a summary with at least one professional goal to strengthen the teacher candidate's effectiveness in such areas as beginning class on time, having class materials prepared, bringing timely closure to the lesson, focusing attention on all areas of the room through sight and/or movement, and using instructional space effectively.

Course Evaluation Criteria:

- Tasks (60%)
- Participation, Exams, and Other Assignments (40 %)

ALL tasks must meet the criteria for "demonstrated" as determined by the scoring rubric before credit can be earned for this course. Tasks will not be accepted toward the grade past the due date.

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

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