

University of North Texas at Dallas

SYLLABUS

EDEE 4350:Section090:Math in Elementary Grades, EC-8, 3 Hours FALL, 2011

Department of	Education	Division of
Instructor Name:	<i>Cathey Brooks</i>	
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Office Hours:	Tuesday, 11:00-1:00 (please make an appointment)	
Virtual Office Hours:	<i>NA</i>	
Classroom Location:	<i>Dallas Hall, Room 348</i>	
Class Meeting Days & Times:	Tuesday, 1:00-3:50	
Course Catalog Description:	Principles in mathematics teaching and learning based on national curriculum and assessment standards. The learning processes in the development of mathematical thinking and skills in children. Students observe mathematics instruction and materials in real settings and experience firsthand the scope and sequence of mathematics in a primary/elementary/middle school setting. Assignments, directed field experience and other class activities take place on site in a school setting.	
Prerequisites:	Admission to the teacher education program, which includes participation in a field-based program, EDEE 3320D, 3380D; all courses in the reading/English/language arts part of the academic major; required core and academic major math courses and DFST classes.	
Co-requisites:		
Required Text:	<i>Van de Walle, J. A.; Elementary and Middle School Mathematics: Teaching Developmentally, (7th edition), Texas Edition; Boston: Pearson Education, Inc.</i>	
Recommended Text and References:	National Council of Teachers of Mathematics (2000); Principles and Standards for School Mathematics, NCTM: Reston, Va. (Optional)	
Access to Learning Resources:	UNT Dallas Library: phone: (972) 780-3625; web: http://www.unt.edu/unt-dallas/library.htm UNT Dallas Bookstore: phone: (972) 780-3652; e-mail: 1012mgr@fheg.follett.com National Council of Teachers of Mathematics: www.nctm.org TEKS: http://www.tea.state.tx.us	
Course Goals or Overview:		
	This course is designed to develop reflective teaching practices in mathematics. The students will be exposed to a wide range of issues and theories in mathematics curriculum and encouraged to relate these to his/her own teaching practices. Opportunities for teaching and observation of teaching will be provided in order to analyze and reflect on teaching practices in mathematics. This course encourages students to make meaningful connections between theory and practice through a variety of experiences.	
Learning Objectives/Outcomes: The student will demonstrate the ability to understand and teach:		
1	Numbers, number systems, operations, and algorithms (Texas EC-8 Teacher Standard 1)	

2	Patterns, relations, functions, and algebraic reasoning (Texas EC-8 Teacher Standard II)
3	Geometry, spatial reasoning, and measurement concepts (Texas EC-8 Teacher Standard III)
4	Probability, statistics, and their applications (Texas EC-8 Teacher Standard IV)
5	Mathematical processes and mathematical reasoning (Texas EC-8 Teacher Standard V)
6	The historical development of mathematical ideas (Texas EC-8 Teacher Standard VI)
7	How children learn and develop mathematical skills and concepts (Teacher EC-8 Teacher Standard VII)
8	Formal and informal assessment techniques (Texas EC-8 Teacher Standard VIII)
9	Mathematical teaching as a profession (Texas EC-8 Teacher Standard IX)

CONTENT, REQUIREMENTS, ACTIVITIES

Content and Methodology

The content of this class integrates recent research and theories to investigate the nature of how students in grades EC-8 learn mathematics. The strategies for teaching mathematics developmentally will be modeled. Candidates will become familiar with planning and teaching mathematics by actively engaging in the developmental process.

Proficiencies for Teachers in Learner-Centered Schools and course Objectives:

1. **Learner-Centered Knowledge-** The teacher possesses and draws on a rich knowledge base of content, pedagogy, and technology to provide relevant and meaningful learning experiences for all students. Candidates will communicate knowledge of the NCTM *Principles and Standards 2000* for grades EC-8, explore ways to facilitate learners' construction of their own knowledge of mathematics, and engage in strategies and techniques for teaching the mathematical topics of numbers, computation, patterns, functions, statistics, probability, geometry, measurement and functional concepts of algebra.
2. **Learner-Centered Instruction-**To create a learner-centered community, the teacher collaboratively identifies needs; and plans, implements, and assesses instruction using technology and other resources. Candidates will analyze the practice of effectively teaching mathematics through the following four categories: selecting worthwhile mathematical tasks; using a variety of tools including calculators, computers, physical and pictorial models to enhance discourse; creating a learning environment; and assessing teaching and learning. Candidates will design and implement instruction and assess effectiveness during field experiences.
3. **Equity in Excellence for All Learners-** The teacher responds appropriately to diverse groups of learners. Candidates will explore the range of ways that diverse students at this age level learn mathematics, Observe during field experiences the NCTM vision that all students can learn to think mathematically as lessons are designed and implemented for a diverse group of students.
4. **Learner-Centered Communication-** While acting as an advocate for all students and the school, the teacher demonstrates effective professional and interpersonal communication skills. Candidates will communicate mathematically in written and oral form during class and field experiences. Candidates will communicate and demonstrate a positive attitude towards students and mathematics.
5. **Learner-Centered Professional Development-** The teacher, as a reflective practitioner dedicated to all students' success, demonstrates a commitment to learn, improve the profession and maintain professional ethics and personal integrity. Candidates will collaborate with teachers and peers in planning, teaching, and assessing lessons for students during field experiences, analyze and evaluate the appropriateness and effectiveness of their teaching, and research, discuss and reflect on practices and ideas in professional publications.

Course Outline

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated either in class or via e-mail.

TOPICS	TIMELINE
1. Syllabus and Calendar-Chapters 1 and 2	08/30/11
2. Bridging the Curriculum-Math and Literature	09/06/11
3. Lesson Plan Design-Chapters 8 and 9	09/13/11
4. Library-Chapter 14	09/20/11
5. Plan Presentations-Chapter 19	09/27/11
6. Place Value-Chapter 11	10/04/11
7. Fractions-Chapters 15, 16, and 19	10/11/11
8. Geometry-Chapter 20	10/18/11
9. Lesson Presentations begin-Chapter 17	10/25/11
10. Lesson Presentations continue-Chapter 18	11/01/11
11. Lesson Presentations continue-Chapter 21	11/08/11
12. Lesson Presentations continue-Chapters 22 and 23	11/15/11
13. Lesson Presentations end-Chapter	11/22/11
14. TExES Prep Review	11/29/11
15. TExES Prep Review	12/06/11
16. Conclusion of EDEE 4350-Guest Speakers	12/13/11

Course Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

Grading Matrix:

Instrument	Value (points)	Total
Attendance	16 at 2 points each	32
Participation/Attitude	16 at 2 points each	32
NCTM Activity	2 at 10 points each	20
Journal Article	2 at 10 points each	20
Resource Notebook	1 at 40 points	40
Lesson Presentation	1 at 40 points	40
Technology Activity	2 at 10 points each	20
Papers written in class	3 at 10 points each	30
Lesson Plan	1 at 10 points	10
Tutoring Project	1 at 40 points	40
Bridging the Curriculum	1 at 15 points	15
Teacher Interview	1 at 10 points	10
Parent Conference	1 at 10 points	10

Total

319 points

Grade:**A=287-319****B=255-286****C=223-254****D=191-222****F=below 190**

University Policies and Procedures

Students with Disabilities (ADA Compliance):

The University of North Texas Dallas faculty is committed to complying with the Americans with Disabilities Act (ADA). Students with documented disabilities are responsible for informing faculty of their needs for reasonable accommodations and providing written authorized documentation. For more information, you may visit the Office of Disability Accommodation/Student Development Office, Suite 115 or call Laura Smith at 972-780-3632.

Student Evaluation of Teaching Effectiveness Policy:

The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SETE to be an important part of your participation in this class.

Assignment Policy:

All papers completed outside of class and turned in for evaluation should be typed, unless otherwise indicated, demonstrating neatness and appropriateness in grammar, punctuation, capitalization and spelling. Points will be deducted for multiple errors. Assignments must be turned in on time. A 10% penalty will be deducted if not turned in at the beginning of class on due date. No assignments will be accepted via internet. Non-acceptance is at the instructor's discretion.

Conferences may be scheduled either at the instructor or student's request.

Academic Integrity:

Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of conduct and Academic Dishonesty policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the Student Code of Conduct at http://www.unt.edu/csrr/student_conduct/index.html for complete provisions of this code.

Bad Weather Policy:

On those days that present severe weather and driving conditions, a decision may be made to close the campus. In case of inclement weather, call UNT Dallas Campuses main voicemail number (972) 780-3600 or search

postings on the campus website www.unt.edu/dallas. Students are encouraged to update their Eagle Alert contact information, so they will receive this information automatically.

Attendance and Participation Policy:

The University attendance policy is in effect for this course. We meet only once a week, so attendance and punctuality are an integral part of the class. Attendance will be recorded each class period. You will receive a two point deduction from your point total for each absence. One point will be deducted for the first three tardies. Beginning with the fourth, one point will be deducted for each tardy. You are awarded two points each class period for participating and showing a positive attitude.

Diversity/Tolerance Policy:

Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive & inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Center for Student Rights and Responsibilities as the instructor deems appropriate.

Optional Policies:

- Use of Cell Phones & other Electronic Gadgets in the Classroom are NOT allowed. NO TEXTING!!
- Food & Drink in the Classroom are allowed as long as they do not interfere with our class work.
- Use of Laptops ONLY when EDEE 4350 class work requires it.