

ASU College of Education - Teacher Education Department
ED 4309 Course Syllabus
Mathematics: Elementary and Middle School Teacher
Course Syllabus-Spring 2010

Professor: Dr. Donna Gee

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Office hours: M,W 10:00 -12:00 & 1:15-2:15 T, Th, 10:30-12:30 F by appointment

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ED 4309 Mathematics: Elementary and Middle School Teacher TR

Course Description: This field-based course emphasizes the integration of research and theories about the process of learning mathematics. The development of logical reasoning in students, stages of intellectual development, appropriate questioning and problem solving strategies and techniques will be used with students in a public school setting. The TEKS addressing basic mathematics information, methods, and materials will be included.

Required Reading:

Burns, M. (2007). *About teaching mathematics: A K-8 resource* (3rd ed.). White Plains, NY:Math Solutions.

Articles and chapters as assigned

Course Goals:

1. Develop specific skills, competencies, and points of view needed by professionals in the field of education.
2. Learn to *apply* course material for teaching and learning.
3. Gain knowledge of how children learn mathematics.
4. Use strategies and activities to teach a variety of elementary school mathematics topics.
5. Demonstrate the skills of planning to teach, including questioning and meeting the needs of diverse learners.
6. Uses assessment techniques to guide instruction.
7. Discuss the roles of attitude and confidence in mathematics learning when creating a learning environment.

TEXES Generalist Competencies/Standards:

Domain II Mathematics/Competency 13. The teacher understands how students learn mathematical skills and uses that knowledge to plan, organize, and implement instruction and assess learning.

Domain II Mathematics/Competency 18. The teacher understands mathematical processes and knows how to reason mathematically, solve mathematical problems, and make mathematical connections within an outside of mathematics.

Methods of Instruction:

The instructional methods used in this class include, but are not limited to: lecture, discussion, collaborative groups, individualized projects, demonstrations, media, group presentation, reading and response. BLACKBOARD is utilized for communication and class assignments information. *Students are to check their ASU email several times each week for communication from professors and ASU.*

Course Requirements:

Students are expected to complete all classroom and out-of-classroom assignments in order to successfully complete the course. Students are expected to complete a practicum placement in the public schools. Students are expected to check BLACKBOARD and their ASU emails on a regular basis each week. **You are to check into Blackboard for this class each day for notices and information. Print out and bring to class documents as indicated in Blackboard.**

Attendance:

Students are expected to be in class on time and to attend each scheduled class. Students should notify the professor by email or voice message if they miss class. **After 2 absences, 2 points will be deducted from the final grade for EACH additional absence.** These 2 absences must count for occasions such as illness, bad weather, funeral attendance, and court appearances. Try to save them for emergencies. Excused absences for medical or family reasons permit students to make up work missed yet still result in points deducted.

During the practicum 2 points will be deducted from the final grade for EACH absence. The instructors, classroom teacher, and the members of your group **MUST** be notified in advance. The 3 points will NOT be deducted if you make up the absence. Points will be deducted if the instructors and the cooperating teacher are not called in advance for an absence.

As a developing teacher, your ability to demonstrate a positive and professional attitude toward your peers, assignments, practicum teacher, and the instructor is essential. Being unprepared for class and assignments turned in late will negatively affect the letter grade. **Before each class session, check Blackboard and print out and bring any documents needed for class.**

Student must access BLACKBOARD for electronic posting of syllabus, assignments, announcements, grading information, etc. Students are to download these documents and bring the copies to class. Contact the ASU Help Desk at 325-942-2911 to learn about BLACKBOARD and accessing it. Do this before the second day of class.

All written assignments must be typed.

Course Evaluation and Grading:

1. Class attendance, participation, professionalism	
2. Threaded Discussion Posting	10%
3. Lesson using Children's Literature	10%
4. Illuminations: Report	5%
5. Mathematics presentation	5%
6. Mathematics journal	5%
7. Practicum Teaching.....	20%
8. Practicum Lessons.....	35%
9. TExES Practice Test	5%
10. Outdoor School Implementation & Reflection	5%

Grading Policy:

90-100 = A
80 - 89 = B
70 - 79 = C
60 - 69 = D
Below 60 = F

Persons Seeking Accommodations: Persons with disabilities which may warrant academic accommodations must contact the Student Life Office, Room 112 University Center, in order to request such accommodations prior to any accommodations being implemented. Students are encouraged to make this request early in the semester so that appropriate arrangements can be made.

Academic Honesty: Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, which is contained in both print and web versions of the *Student Handbook*.

Plagiarism or the use of Internet Web, etc. prepared papers is strictly forbidden. Faculty utilize Internet search links that assist in identifying plagiarized materials.

College of Education Cell Phone/Electric Paging Device Policy: Cell phones, pagers, and other electronic devices are to be turned off during class time.

Tentative Weekly Schedule of Classes**Assignments**

Jan 19 Introduction

Jan 21 NCTM standards

Jan 26 TExES practice test

Jan 28 How Children Learn Mathematics Burns p. 7-50

Feb 2 Problem Solving Strategies

Feb 4 Number Sense,
Lesson Planning

Discourse that Promotes Conceptual Understanding

Feb 9 Number Concepts

Feb 11 Number Concepts

Burns p. 51-66 & 171-195

Feb 16 Fractions & Decimals

Feb 18 Patterns & Geometry

Children's Literature Lesson

Feb 23 Measurement

Feb 25 Probability & Statistics

Math presentations- Measurement & Geometry

Math presentations-Prob/Stat & Geometry

March 2 Teaching Mathematics

March 4 Project Wild

Math presentations-Beg # & Mult/Div

March 9 ESL & Teaching Mathematics

March 11 Practicum

Illuminations Report, Math notebook due

Report to practicum

March 15-20 Spring Break!!

March 23 Practicum

March 25 Practicum

Teach lessons & reflection

Teach lessons & reflection

March 30 Practicum

April 1 Practicum

Teach lessons & reflection

Teach lessons & reflection

April 6 Practicum

April 8 Practicum

Teach lessons & reflection

Teach lessons & reflection

April 13 Practicum

April 15 Practicum

Teach lessons & reflection

Teach lessons & reflection

April 20 Project Wild

April 22 Outdoor School preparation

Practicum lessons & reflection due

April 27 Outdoor School preparation

April 29 Assessment

May 4 Outdoor School!

Outdoor School implementation

May 6 Integrating Math & Science

Outdoor School reflection

Finals schedule:

2:00 T R class final – Tuesday, May 11 1:00h 3:00

12:30 T R class final – Thursday, May 13 10:30h 12:30