ED 4309 Mathematics: Elementary and Middle School Teacher

Professor/Instructor: Dr. Donna Gee
Email: donna.gee@angelo.edu
Office Hours: M 12:15-3:30; T, Th 10:00-12:30
Online Office Hours: WF 11:00-12:00

Day, Time & Location of Course
TR 12:30-1:45 or 2:00-3:15, CARR 128

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.

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.

Materials Needed

- TaskStream account.
- Articles and other readings as assigned
- Notebook

Requirements
Candidates are expected to complete all classroom and out-of-classroom assignments in order to successfully complete the course. Candidates are expected to check BLACKBOARD and ASU email on a regular basis each week. Candidates are expected to attend class, complete reading assignments each week, and complete assignments as scheduled. Candidates are expected to complete a field experience placement in the public schools. Candidates must access BLACKBOARD for electronic posting of syllabus, assignments, announcements, grading information, etc.
Community Engaged Scholars. Candidates will begin their role of being socially responsible by being engaged in the community through field experiences and practice teaching in the public schools.

OUTCOMES
The following chart lists the learning outcomes for this course. Learning outcomes for this class are based on ASU Undergraduate Learning Goals, TExES Standards and Competencies for Teachers, and InTASC Standards. More information for each of these can be found at the Internet links listed below.

<table>
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<tr>
<th>ASU Undergraduate Learning Goals</th>
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<td>1. Liberal knowledge and skills of inquiry, critical thinking, and synthesis</td>
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<td>2. Core skills</td>
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<td>3. Specialized knowledge</td>
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<td>4. Social responsibility</td>
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<td>5. Cultural Identity</td>
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<tr>
<th>Texas Educator Standards - TExES Competencies</th>
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<td>Standard V. Mathematical Processes. Understands and uses mathematical processes to reason mathematically, to solve mathematical problems, to make mathematical connections within and outside of mathematics, and to communicate mathematically.</td>
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| Standard VII. Mathematical Learning and Instruction. Understands how children learn and develop mathematical skills, procedures, and concepts, knows typical errors students make, and uses this knowledge to plan, organize, and implement instruction; to meet curriculum goals; and to teach all students to understand and use mathematics. |

| Standard VIII. Mathematical Assessment. Understands assessment and uses a variety of formal and informal assessment techniques appropriate to the learner on an ongoing basis to monitor and guide instruction and to evaluate and report student progress. |

InTASC Standards addressed within this course:
1a, 1b, 1c, 1d, 1e, 1f, 1g, 1i, 1j, 2a, 2c, 2l, 2m, 2n, 3a, 3c, 3d, 3f, 3i, 3j, 3k, 3l, 3n, 3o, 3p, 3q, 3r, 4a, 4b, 4c, 4d, 4e, 4f, 4g, 4h, 4j, 4k, 4l, 4n, 4p, 4r, 5b, 5c, 5e, 5f, 5h, 5i, 5l, 5m, 5n, 5o, 5s, 6b, 6e, 6f, 6k, 6r, 7a, 7b, 7c, 7g, 7h, 7k, 7l, 7o, 7q, 8a, 8d, 8e, 8f, 8h, 8i, 8j, 8k, 8l, 8n, 8p, 8q, 8s, 9i, 9o, 10n, 10o, 10t

http://www.ccsso.org/resources/publications/intasc_model_core_teaching_standards_2011_ms_word_version.html

Angelo State University Undergraduate Learning Goals:

TExES Standards /Competencies:
http://tea.texas.gov/Texas_Educators/Preparation_and_Continuing_Education/Approved_Educator_Standards/

Social Responsibility Goal
By the end of this course the candidate will:
- Demonstrate effective engagement in the community.

Assignments
See Blackboard for assignment information. A summary of class assignments is given below. Candidates will be expected to research and collect materials for their teaching and lesson planning.
Other non-graded assignments may be given. All written assignments, presentations, media presentations, etc. must follow the writing style found in the most current edition of the *American Psychological Association Publication Manual* (APA Manual) which is available at the ASU library, at the bookstore, or on-line at [www.apa.org](http://www.apa.org).

Homework/Reflections – Students will complete homework including reflecting on various readings

Lesson plans – students will construct written lesson plans that can be taught during the mathematics field experience. All lessons will be submitted via TaskStream.

Field Experience Teaching – Students will teach mathematics lessons in a classroom and be observed teaching 1 of the lessons, develop lesson plans to be used in the classroom, and reflect on their teaching of the lessons.

Before each class session, check Blackboard and print out and bring any documents needed for class.

**ASU OP10.04 Academic Regulations Concerning Student Performance**
http://www.angelo.edu/opmanual/#s10

**Course Evaluation and Grading**

1. Class attendance, participation, professionalism
2. Homework/Reflections ............................................. 15%
3. Lesson plans ............................................................ 20%
4. Field Experience Teaching........................................... 65%
   - Teaching – 40%
   - Lesson plans – 10%
   - Lesson reflections – 15%

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

**Attendance Policy**
Candidates are to adhere to ASU policy OP 10.04 and Unit policy.
http://www.angelo.edu/opmanual/#s10

As a developing teacher, your ability to demonstrate a positive and professional disposition toward your peers, assignments, practicum teacher, and the instructor is essential. 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 are going to miss class.

There are a total of two excused absences for the semester (this includes being absent for class or the field experience) that allow for occasions such as illness, bad weather, funeral attendance, and other such personal events. Try to save your two excused absences for emergencies. Excused absences for medical or family reasons permit candidates to make up work missed yet still result in
points deducted. **After 2 absences, points will be deducted from the final grade for EACH additional absence.**

During the field experience only one absence is allowed and any further absences must be made up and documented by your classroom teacher. Failure to make-up absences during the field experience will drop your final letter grade by one letter. The instructor, classroom teacher, and the members of your group MUST be notified immediately of any upcoming absence or late arrival.

**ASU OP10.19 Student Absence for Observance of Religious Holy Day**
[http://www.angelo.edu/opmanual/#s10](http://www.angelo.edu/opmanual/#s10)

**ASU OP 10.15 Providing Accommodations for Students with Disabilities**
[http://www.angelo.edu/opmanual/#s10](http://www.angelo.edu/opmanual/#s10)
[http://www.angelo.edu/services/student_services/disability_services_overview.php](http://www.angelo.edu/services/student_services/disability_services_overview.php)

Persons seeking accommodations must contact the Student Life Office, Room 112 University Center, 942-2191, 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**
Candidates are to be familiar with the ASU Student Handbook and the University Honor Code which includes the “Student Academic Honor Code Statement”
[https://www.angelo.edu/student-handbook/](https://www.angelo.edu/student-handbook/)
[http://www.angelo.edu/dept/writing_center/academic_honesty.php](http://www.angelo.edu/dept/writing_center/academic_honesty.php)

Candidates are to adhere to ASU policy. 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.*

Specific conditions for courses taught in the Department for Teacher Education: At the first incident of plagiarism, the student will receive a zero (0) for the plagiarized assignment while this infraction will be noted on the student's records. Should there be a second occurrence of plagiarism, the student will receive a final grade of F for the course and another infraction report will be added to the student's permanent records.

**Class Schedule**

**ED 4309 Mathematics: Elementary and Middle School Teacher**
(tentative, may be adjusted by professor as needed)

**Tentative Weekly Schedule of Classes**

**Week 1**  Introduction, NCTM standards

**Week 2**  Children Learn Math, Problem Solving/Logical Reasoning

**Week 3**  Problem Solving Strategies, Lesson planning
Week 4 Lesson planning

Week 5  Teaching mathematics

Week 6  Teaching mathematics

Week 7  Lesson planning, ESL learners

Week 8  Teaching Mathematics & Assessment

Weeks 9 - 15  Field Experience

Week 16 Finals

Other Items
Cool Web Sites
www.Mathsdictionary.com
www.visualfractions.com/FindGrampystrict.html
http://nces.ed.gov/nceskids/createagraph/
http://nlvm.usu.edu  Virtual manipulatives
http://jc-schools.net/tutorials/vocab/STUDY_BINGO.xls
www.nctm.org  National Council of Teachers of Mathematics
http://blackboard.angelo.edu/        Blackboard access at Angelo State University
www.tea.state.tx.us        Texas Education Agency
www.sbec.state.tx.us        State Board for Educator Certification (Texas)
www.apa.org        American Psychological Association
http://texas.ets.org/assessts/pdf/testprep_manuals/    TExES Test Preparation Resources -
preparation manuals, practice tests, lists of competencies for state testing, etc.
http://lesson.taskstream.com/lessonbuilder/ For those with Taskstream accounts this site has
important links and information for teacher preparation students. Contact the Teacher Education
office for information on obtaining a Taskstream account.