



University of Texas at San Antonio - UTSA
College of Education and Human Development - COEHED
Advanced Methods in Early Childhood & Elementary Education
Focus on Mathematics
ECE 6303/ Fall 2008

Instructor: Dr. Jenifer Thornton MB. 2.224 458.7939

Office Hours: Before/ after class and by appointment as needed

Email: Please submit all communication through WebCT

Department of Interdisciplinary Learning and Teaching – ILT

Mission

The mission of the Department of Interdisciplinary Learning and Teaching is to foster the intellectual and professional growth and integrity of students and faculty through critical reflection and dialogue, civic responsibility, and leadership.

Goals

The Department of Interdisciplinary Learning and Teaching will create a context that nurtures interdisciplinary learners who:

- acquire and demonstrate content and discipline knowledge
- demonstrate an awareness and acknowledgement of and engagement in research-based, reflective, culturally responsive practices
- are producers, disseminators, and critical consumers of research
- demonstrate an awareness and acknowledgment of and engagement in social justice and equitable practices
- articulate their professional philosophy and demonstrate a strong professional identity

ECE 6303 - Course Description

3 hours credit.

This class is designed to explore current methodology for facilitating mathematics experiences for young children. This course will focus on 1) early childhood mathematics curriculum, 2) the mathematics teacher, and 3) the young child. Equity, mathematics standards and curriculum, assessment and classroom management will all be addressed.

Required Textbooks

Smith, S. (2006). *Early Childhood Mathematics (3rd ed.)*. Boston: Pearson.

Additional required reading material will be posted on WebCT and/or handed out in class.

Course Goals

You will be given the opportunity to:

1. develop an understanding of early childhood students' developmental levels as they relate to understanding and processing mathematics.
2. explore the state and national guidelines pertaining to mathematics instruction for young children.
3. strengthen your personal knowledge of mathematics.

4. evaluate mathematics curriculum for young children.
 5. create schedules for appropriate daily mathematics instruction.
 6. promote equity in mathematics.
 7. determine how to integrate technology and ongoing assessment into daily mathematics instruction.
 8. choose appropriate mathematics materials and manage their use.
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Overview of Course Requirements

Grading criteria and specifications for each assignment will be given by the instructor.

1. Assignments must be turned in on or before the specified due date. To be considered timely, assignments are due at the beginning of class. Twenty percent of the total amount of points for each assignment will be deducted from your grade for each class period that your assignment is late. If you are going to be absent on the day an assignment is due, make arrangements to have your assignment delivered to class or placed in the instructor's box. **ASSIGNMENTS MAY NOT BE SUBMITTED VIA WEBCT.**
2. Assignments must be complete upon submission. No incomplete assignments will be accepted. The instructor will not review assignments prior to their submission.
3. Assignments should be neat and error free. Points will be deducted for excessive, extraneous mistakes related to spelling, grammar, formatting, etc.
4. Assignments should be prepared on a computer using appropriate word processing software in APA style. Facilities are available to students on campus for this purpose.

Assignments

Semester Project

The goal of this assignment is to foster extended knowledge about a particular facet of mathematics by allowing you to choose your particular area of interest. Extended criteria and requirements for each assignment will be posted on WebCT. By the specified due date, you will be required to submit a list of choices and corresponding due dates as indicated in the syllabus.

1. Attendance at, and reflection of, an early childhood mathematics conference or early childhood professional development seminar	2. Documentation, reflection, and evaluation of a mathematics mini-lesson done with a group of early childhood students	3. Locating and presenting effective and engaging web-based activities that support each of the five NCTM content standards
4. Development of a math center	5. Student-initiated research area	6. Self selected research into an area of mathematics that you have limited knowledge in
7. Interview with 4 people regarding their viewpoint of mathematics	8. Development of a classroom management system to manage early childhood mathematics centers	Development and presentation of an early childhood mathematics mini-lesson based on children's literature

Position Papers:

Select **ONE** of the three following topics:

1) Position paper on a debated area within mathematics

The goal of this writing assignment is to research a divisive topic in early childhood mathematics education (i.e. use of manipulatives in the classroom, the use of calculators in the classroom, constructivist vs. direct methods of instruction, homogenous groupings) and pick a position based on your personal experiences and information gained through research. You should find at least 4 research articles about this topic and use these articles to write an 8-10 page paper in which you present and defend your position on this topic. Your paper should present your ideas about the topic based on your personal knowledge and previous experiences and supported by information from a variety of sources (books, interviews, etc), including the 4 research articles.

OR

2) Position paper on the NCTM Standards and mathematics reform

The goal of this writing assignment is to become familiar with the NCTM Standards for Mathematics and to critically evaluate the importance of the national standards for early childhood mathematics. You should begin by critically examining the NCTM Standards for mathematics content and processes. In your 8-10 paged paper you need to present some of the main ideas found in the NCTM Standards and critically address their influence on mathematics reform, teachers of mathematics, students, and mathematics pedagogy. You must find at least 4 book chapters, articles, or other professional resources that debate or discuss the Standards and use them to support your position.

OR

3) Personal philosophy on mathematics position paper

This goal of this writing assignment is to synthesize and articulate your personal philosophy as it relates to early childhood mathematics teaching and learning. While your philosophy will be based on your previous experiences, background knowledge, and personal viewpoints, you will need to examine a variety of sources (i.e. books, published texts, journal articles) to use as support of your personal philosophy. Include a minimum of 4 resources to support your philosophy. Begin by addressing the overall purpose of education/ schools and include your philosophies on

- a. The role of the teacher
- b. The role of the student, parents, community
- c. The purpose of mathematics and mathematical understanding
- d. Appropriate learning strategies for early childhood students (How do they best learn?)
- e. Effective teaching strategies (What teaching strategies work best for young children?)

E- Menu

The goal of this activity is to create a technology-based menu of mathematics activities appropriate for young children. You will first need to choose a grade level (PK-2) for your menu and become familiar with the state mathematics guidelines for that grade level. You will then create a set of 9 engaging, appropriate and relevant mathematics activities for students to choose from. Specific requirements and grading criteria will be discussed in class.

Student Evaluation

Evaluation of student performance in this course is based on a combination of assessments/outcome based options to determine student understanding of course objectives. The final grade in the course will be calculated in the following manner:

Attendance/ professionalism	10%	_____
In class activities/ participation	20%	_____
Semester project	20%	_____
Position paper	40%	_____
E Menu	10%	_____

A= 90-100

B= 80-89

C= 70-79

D= 60-69

F= below 59

Attendance and Professionalism

Attendance of scheduled classes is **mandatory** for the completion of this course. Activities designed for class participation cannot be replicated and may not be completed outside of allotted class time. Therefore, attendance is expected for each class session.

Attendance will be checked at the beginning of each class period. It is your responsibility to put your attendance card into the attendance folder. **In order to be considered present for the class, you must arrive on time and remain in class for the entire class period.**

Tardiness to class is unprofessional and disruptive. Excessive tardiness over the course of the semester will result in a deduction of professionalism points.

Points will be deducted from your final grade for all absences after the first one. Excused absences are absences that have been discussed with, and approved by, the instructor prior to the absence or any unplanned absence that is accompanied by documentation. **Excused absences will result in a grade deduction of five points. Unexcused absences will result in a subsequent reduction of your final grade by one letter grade.**

You are expected to demonstrate professional conduct and wear professional attire during class (see Fitness to Teach policy document located in the Department website). Please refrain from engaging in individual conversations during lectures or class discussions. **ALL CELL PHONES AND BEEPERS MUST BE TURNED OFF DURING CLASS PERIODS UNLESS PRIOR PERMISSION HAS BEEN GIVEN BY THE INSTRUCTOR. LAPTOPS ARE NOT NECESSARY AND, UNLESS PRIOR PERMISSION HAS BEEN GIVEN BY THE INSTRUCTOR, ARE NOT PERMITTED IN CLASS.**

Policies and Procedures

The instructor will follow all the policies and procedures, in regard to students, as they are specified in the UTSA Faculty Handbook and the Fitness to Teach Policy document. Any incidence of scholastic dishonesty or other student discipline issues, will be managed as the Handbook specifies (Faculty Handbook, Section 2.37, pages IV-3li-vi).

No electronic recording of lectures or class sessions may be done without the prior permission of the instructor. No eating, drinking, or smoking is allowed in UTSA classrooms and laboratories. (Ad. Memorandum No. 54).

Students with Disabilities

Students with disabilities must be registered with the Office of Disability Services (MS 2.03.18, telephone 458-4157(Voice), 458-4981 TTY, UTSA Downtown BV 1.302 458-2816) in order to receive support services. If you need accommodation for a disability, please make an appointment to meet with me as soon as possible.

Resources

Teaching is something that is a very integral and important part of my life. Teaching both preservice and inservice teachers allows me to not only do what I love, but also to collaborate with people who share my passion. My goals for this class are to validate what you already know, teach you something that perhaps you didn't, and be a resource and support for you throughout this class and in the future. Do not hesitate to ask for my help or advice if you need it. I'll be glad to meet with you either during scheduled office hours or arrange alternate times to meet and discuss any issue or concern you may have.

The Tomás Rivera Center: The TRC provides an array of services to assist student in achieving learning success. A large proportion of beginning students find that the skills they develop in high school may not be adequate for success at the college level. The TRC provides training and assistance in such areas as study skills, test taking strategies, note taking skills, etc. The Center also has individual advising and tutoring for some courses. At the moment, tutoring is not available for this course but the various skills workshops that they run along with individual advising may prove extremely helpful. The TRC is located in the University Center 1.01.02 (far west end of the UC). You can reach them via the web (www.utsa.edu/trcss) or by phone (458-4694).

