

University of North Texas at Dallas
Spring 2016
SYLLABUS

EDEC 5900: Special Problems			
(EDEC 5322: Teaching Pre-K/K Math and Science 3 Hrs)			
Department of	Teacher Education and Administration	Division of	Education and Human Services
Instructor Name:		Dr. LaBotta Taylor	
Office Location:		UNT-D Adjunct Office	
Contact Phone:		(469) 708-8683	
Email Address:		LaBotta.Taylor@untdallas.edu	
Office Hours:	By Appointment		
Prerequisites:	<i>Graduate Student Standing</i>		
Classroom Location:	University of North Texas at Dallas		
Class Meeting Days & Times:	Spring 2016 semester, Mondays @ 5:30 – 8:20 p.m. Face to Face plus online assignments		
Course Catalog Description:	Inquiry based and experiential approach to understanding 4 through 6 year olds' development of math and science concepts. Begins with physical, cognitive, social, and emotional development of 4 through 6 year olds as it relates to math and science concepts. Students learn practical skills to assess, plan lessons, implement, and reflect on teaching of math and science concepts to 4 through 6 year olds. Special attention is given to Texas Prekindergarten guidelines and Kindergarten TEKS for math and science.		
Required Texts:	Froschauer, L. (2013). <i>A year of inquiry: A collection for elementary educators</i> . Arlington, VA: National Science Teachers Association (NSTA). Stein, M.K. & Smith, M.S. (2011). <i>5 practices for orchestrating productive mathematics discussion</i> . Thousand Oaks, CA: National Council of Teachers of Mathematics (NCTM).		
Recommended References:	Texas Education Agency Pre-K guidelines/Kindergarten TEKS		
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@fhg.follett.com		

Course Goals or Overview:

The goal of this course is to develop knowledge and practical skills to assess, plan lessons, implement, and reflect on teaching math and science to 4 through 6 year olds.

Learning Objectives/Outcomes: At the end of this course, the student will

1	Describe indicators of typical and atypical physical, cognitive, social, and emotional development of preschool children.
2	Explain how children learn science and math concepts including cause and effect, patterns, sequence, classifying, problem solving, and collecting data.
3	Explain the national (NAEYC) and state (Texas Prekindergarten Guidelines and Texas Kindergarten TEKS) criteria for math and science.
4	Demonstrate the ability to assess children's math and science achievements
5	Plan and implement developmentally appropriate Pre-K math and science lesson plans that incorporate multi-culturally diverse music and art.
6	Demonstrate inquiry based critical reflection skills to improve implementation of curriculum.
7	Use research literature to improve implementation of curriculum.

Course Outline

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated by Blackboard. **Readings, listed in blue**, should be completed prior to the face-to-face class. **Activities, listed in green**, should be completed after the face-to-face class as part of the hybrid class. **Assignments, listed in red**, should be submitted via Blackboard Turn It In on the assigned date prior to midnight.

Timeline	TOPICS	Readings/ Activities/Assignments
Week 1: Jan. 18 th	<ul style="list-style-type: none"> Martin Luther King, Jr. Holiday 	MLK, Jr. Holiday/No School
Week 2: Jan. 24 th	<ul style="list-style-type: none"> Syllabus/Introduction 	Purchase required textbooks Discussion Board 1
Week 3: Feb. 1 st	<ul style="list-style-type: none"> How Children Learn math and science concepts Texas Prekindergarten guidelines and Kindergarten TEKS for math and science 	Introductory chapters of textbooks Discussion Board 2
Week 4: Feb. 8 th	<ul style="list-style-type: none"> Environments that Promote Learning of Math and Science 	NSTA & NCTM Discussion Board 3 Journal 1
Week 5: Feb. 15 th	<ul style="list-style-type: none"> The Process of Problem Solving for children Assessment of Math & Science concepts 	NSTA & NCTM Discussion Board 4
Week 6: Feb. 22 nd	<ul style="list-style-type: none"> Measurement – A Way to Capture Observation in Math and Science 	NSTA & NCTM Discussion Board 5 Journal 2
Week 7: Feb. 29 th	<ul style="list-style-type: none"> Organizing Data in Science and Math 	NSTA & NCTM Discussion Board 6
Week 8: March 7 th	<ul style="list-style-type: none"> Midterm Week 	Midterm Due
Week 9: March 14 th	<ul style="list-style-type: none"> Spring Break 	Spring Break

Week 10: March 21 st	<ul style="list-style-type: none"> Criteria for Developing Concept Explorations 	NSTA & NCTM Discussion Board 7 Journal 3
Week 11: March 28 th	<ul style="list-style-type: none"> Astronomy & Space Science: Newton's Three Laws of Motion and Rocketry; Patterns & Measurement Birds: Migratory Patterns & Number Operation 	NSTA & NCTM Discussion Board 8 Reflection Paper 1 Due
Week 12: April 4 th	<ul style="list-style-type: none"> Clouds: Meteorology & Geometry Insects: Metamorphosis: Patterns & Sorting Leaves: Photosynthesis; Patterns & Sequencing 	NSTA & NCTM Discussion Board 9 Journal 4
Week 13: April 11 th	<ul style="list-style-type: none"> Light and Color: Polarization & Refraction; Geometry & Measurement Rocks: Minerals & Data Analysis Seeds: Germination; Measurement & Data Analysis 	NSTA & NCTM Discussion Board 10 Reflection Paper 2 Due
Week 14: April 18 th	<ul style="list-style-type: none"> Sun and Shadows: Astronomy; Algebra Toys and Tools: Mechanics; Measurement & Algebra 	NSTA & NCTM Journal 5
Week 15: April 25 th	<ul style="list-style-type: none"> Review for Final 	Study for Final Exam
Week 16: May 2 nd	<ul style="list-style-type: none"> Final Exam 	Final Exam

Course Evaluation Methods

1. Discussion Boards: Each class, students will post their responses to questions and prompts on the Blackboard Discussion Board. Posts will be graded on accuracy of content, quality, and professional response to others. Rubric will be provided on Blackboard. Discussion board will focus on (a) explain theory, (b) explain research findings, and (c) explain practice implementation of TEKS in light of the theory and research.
2. **Reflection Paper (previously the Assessment Video assignment)** – Students will analyze and evaluate their experience in assessing a kindergarten student or small group of students as they engage in math and science problem solving skills. Rubric will be provided on Blackboard.
3. Critical Reflection Journal - Students will maintain a journal of (a) your subjective thoughts and feelings related to theory to practice on this week's topics; (b) what is working and what is not working; (c) analysis of your own strengths and growth areas (challenges); and (d) action plan for being a change agent (i.e. changing something in you; adapting approach for my school; influencing leadership, or developing common ground among teachers and parents).
4. Midterm/Final Exam: Projects are due on scheduled dates. Rubrics will be provided on Blackboard.

Instrument	Measures SLO	Value (points or percentages)	Total
Discussion Boards	1 – 2, 6	10 Posts x 50 points each	500
Performance-Based Assessment Reflection Paper Due	3	2 performance-based assessments x 50 points	100
Midterm and Final Exam Projects	4	2 projects x 100 points each	200
Critical Reflection Journal	5	5 journal papers x 40 points	200
Total:			1,000

Grading Matrix:

Grade Determination:

A = 1,000 - 900 pts; i.e. 90% or better

B = 899 – 800 pts; i.e. 80 – 89 %

C = 799 - 700 pts; i.e. 70 – 79 %

D = 699 – 600 pts; i.e. 60 – 69 %

F = 599 - 500 pts or below; i.e. less than 60%

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. Grades assigned before an accommodation is provided will not be changed as accommodations are not retroactive. For more information, you may visit the Student Life Office, Suite 200, Building 2 or call 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:

Turn in all written assignments through Blackboard Turn It In. Assignments turned in late will receive a 10% less points than the points scored for that assignment.

Quiz Policy:

Quizzes should be taken as scheduled. No makeup examinations will be allowed except for documented emergencies (See Student Handbook).

Academic Integrity:

Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of Academic Integrity 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 Academic Integrity at <http://www.unt.edu/unt-dallas/policies/Chapter%2007%20Student%20Affairs,%20Education,%20and%20Funding/7.002%20Code%20of%20Academic%20Integrity.pdf> for complete provisions of this code.

In addition, all academic work submitted for this class, including exams, papers, and written assignments should include the following statement:

On my honor, I have not given, nor received, nor witnessed any unauthorized assistance that violates the UNTD Academic Integrity Policy.

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. Class attendance and participation is expected because the class is designed as a shared learning experience and because essential information not in the textbook will be discussed in class. The dynamic and intensive nature of this course makes it impossible for students to make-up or to receive credit for missed classes. Attendance and participation in all class meetings is essential to the integration of course material and your ability to demonstrate proficiency. Students are responsible to notify the instructor if they are missing class and for what reason. Students are also responsible to make up any work covered in class. It is recommended that each student coordinate with a student colleague to obtain a copy of the class notes, if they are absent.

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 orientation, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Office of Student Life as the instructor deems appropriate.