Fall 2024

(T 11:00-12:20, TH Online)

Instructor

Jaclyn Pedersen, Ed.D. Email: <u>jpedersen@uttyler.edu</u>

Indication of best way to contact the instructor: Email

Office Hours: Wednesday 10:00-2:00, Thursday 11:30 – 2:00, Friday 10:00-2:00

Course Catalog Description

Principles of delivering effective instruction in various formats (lecture, lab activity, collaborative settings); examination of gender, disability, class, race, and culture in mathematics and science education; overview of policy related to mathematics and science education. Thirty hours of field/clinical experience are required.

Student Learning Outcomes:

- 1. Design and deliver effective direct teach and inquiry based 5E lessons with a focus on questioning and assessment strategies.
- 2. Promote student learning by providing responsive instruction that makes use of effective communication techniques, instructional strategies that effectively engage students in the learning process and timely, high-quality feedback.
- 3. Analyze lesson artifacts, including video evidence and pre/post assessments, for effectiveness of lesson.
- 4. Differentiate instruction, as evidenced in lesson plans, to meet the needs of diverse learners.
- 5. Demonstrate a commitment to integrating technology that enhances lesson engagement to create an authentic learning environment that promotes problem-solving and decision making for all learners.

Summative Assessments:

- Completion of a Professional Digital Portfolio DRAFT, which documents current progress toward meeting the State Board for Educator Certification standards for new teachers.
- 2) Mock teacher interview focusing on questions formulated from class topics.

Course Objectives (from the State Board for Educator Certification standards)

Course Topics and/ or SLO	Activities and Assessment	Standards Alignment			
UTeach Teachers will be able to:	Evidence of Student Learning:	Texas Educator Standard(s)	ISTE Standard(s)	InTASC Standard(s)	TExES Pedagogy and Professional Responsibility Standards EC-12
Observe and analyze classroom instruction as it relates to the planning, implementation, and reflection of the teacher with regard to equitable and diverse populations.	 Portfolio Proficiencies Written Reflections 	• Standard 1	• 3ab • 5abc	Standard 1Standard 2Standard 3Standard 7	 Domain I: Comp 001 Domain I: Comp 002 Domain II: Comp 005
Discuss and critique the merits of multiple models of teaching (including direct instruction, inquiry teaching and use of small groups, with and without technology).	Lesson PlansPortfolioProficiencies	• Standard 1	• 1c • 2a • 5abc • 6c	• Standard 3 • Standard 4	Domain I: Comp 001Domain I: Comp 003Domain I: Comp 004
Design instruction appropriate for all students that reflects an understanding of relevant content and is based on continuous and appropriate assessments.	 Lesson Plans CTOR Forms Portfolio Proficiencies 	• Standard 1 • Standard 3	3a4a5abc6bcd7abc	Standard 1Standard 4Standard 7	 Domain I: Comp 001 Domain I: Comp 003 Domain III: Comp 008 Domain III: Comp 010
Discuss and critique the merits of and instructional practices related to equity topics such as gender, ethnicity, limited English proficiency, socioeconomic status, gifted education, and learning	 Individualized Lesson Project CTOR Forms TEA Modules Portfolio Proficiencies 	• Standard 4	2ab3ab4d5abc6a	• Standard 2 • Standard 3	 Domain I: Comp 002 Domain I: Comp 003 Domain II: Comp 005

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disabilities like dyslexia and dyscalculia.					
Promote student learning by providing responsive instruction that makes use of effective communication techniques, instructional strategies that actively engage students in the learning process, and timely high-quality feedback (with and without technology).	 Lesson Plans CTOR Portfolio Proficiencies 	Standard 2Standard 5	 2abc 3abcd 4bc 5abc 6bcd	 Standard 1 Standard 4 Standard 5 Standard 8 	 Domain I: Comp 003 Domain I: Comp 004 Domain II: Comp 006 Domain III: Comp 007 Domain III: Comp 009
Summarize and evaluate research related to best practices in the planning, implementation, and reflection in the teaching profession.	 Portfolio Proficiencies Article Research Oral Exam 	• Standard 1 • Standard 3	1abc2c7abc	Standard 1Standard 2Standard 3	 Domain I: Comp 001 Domain I: Comp 003 Domain I: Comp 004 Domain II: Comp 005
Present findings from research to their peers and apply it to classroom experiences.	Portfolio ProficienciesArticle Research	• Standard 1	1abc2a7bc	Standard 1Standard 3Standard 7	Domain I: Comp 001Domain I: Comp 004
Demonstrate familiarity with several important types of teaching technology (presentation software, computer simulation software, graphical analysis and representation software) and analyze how technology can affect classroom interactions.	 CTOR Form Portfolio Proficiencies Lesson Plans Written Reflections 	• Standard 1 • Standard 3	1ac4abcd5abc7bc	Standard 1Standard 8Standard 11	Domain I: Comp 001Domain I: Comp 004
Fulfill professional roles and responsibilities and adhere to legal and ethical requirements of the profession.	 CTOR Form Portfolio Proficiencies TEA Modules 	• Standard 6	• 1abc	• Standard 9 • Standard 10	 Domain I: Comp 003 Domain IV: Comp 011 Domain IV: Comp 012 Domain IV: Comp 013

Evaluation and Grading

Interviews and Observations Paper	10%
Teacher Lesson Plans and Analyses	40%
Professional Journal Article Summary	10%
Online Quizzes and Reflections	30%
Portfolio Presentation	10%
TOTAL	100%

A = 90-100% B = 80-89% C = 70-79% D = 60-69% F = 0-59%

Last Day to Withdraw: Monday November 4th, 2024

NOTE: It is an expectation that for every hour spent in class, two hours should be spent outside of class reading and working on assignments.

Related Field Experiences

A student must successfully pass field in order to pass this class. Passing field is based on three factors:

- 1. completion of a minimum 30 contact hours in the traditional field placements
- 2. active participation during field/clinical hours, and
- 3. observable improvements in implementation of prepared lessons (minimum of TWO university supervisor observations)

CLASS REQUIREMENTS

<u>Interviews and Observations Paper</u>: During the course of the semester, you will be required to conduct one teacher interview with your mentor teacher along with two official observations of your mentor teacher's classroom and teaching, and one interview of students following your first teaching lesson. You will be required to summarize and

critique the results of these interviews and observations in a paper structured by the planning, implementation, and reflection practices of the observed classroom teacher and students.

<u>Teacher Lesson Plans and Analyses</u>: You will be required to teach two complete lessons in your field experience. At the beginning of the semester, you will teach one class period in your mentor teacher's classroom. Towards the end of the semester you will teach two consecutive days in your mentor teacher's classroom. You will create draft lesson plans for these two field teaching experiences, you will present these drafts to your peers, and you will create a final lesson plan prior to both teaching experiences. The lesson plans will need to be detailed and descriptive and follow the School of Education lesson plan formats provided in the Canvas. You will also have to complete a Deconstructing Standards document for each lesson plan and an Analysis following each lesson.

<u>Professional Journal Summary</u>: The student will be required to summarize and discuss **one** professional journal article pertaining to best teaching practices in a select equity topic. The requirements and example are provided at the end of the syllabus.

<u>Online Quizzes and Reflections</u>: The student will be required to complete online quizzes and discussions related to required readings throughout the semester. Questions will be formatted in conjunction with the PPR.

<u>Final Presentation</u>: Students will be required to work throughout the semester preparing their professional portfolio. Artifacts from all aspects of teaching will be collected and displayed to the whole class. In addition, students will reflect on required protocols of teaching and how they are growing into a research practitioner of education.

Field/Clinical Experience: A major portion of this course is the field experience. You are required to have a total of 30 contact hours in the classroom observing and teaching during the Semester. These hours are to be set up and scheduled by you with the assigned mentor teacher that best suits your schedule. You will interview and observe classroom teachers and teach three times in their classrooms. These teaching experiences will be observed by a University Supervisor and you will be evaluated using the UT Tyler School of Education Clinical Teaching Observation Rubric (CTOR). **You must log a minimum of 30 hours and pass the CTOR forms in order to earn credit for this course.**

Required Text, Materials/Supplies, and Related Readings

There is no required text for this course. All related readings will be provided in Canvas.

Course Policies (attendance, make-up assignments, etc.)

All assignments are due on or before the dates provided in the **Dynamic Calendar in Canvas**. Ten percentage points will be subtracted from your assignment score for each calendar day the assignment is late, maximum 50%. Assignment dates may be moved to later (but not earlier) scheduled dates during the course of the semester. All quiz dates are final. If a quiz is not taken due to a documented illness, funeral, or other university related activity, then a make-up date must be scheduled with the professor. Note that the Canvas program TurnItIn will be used during the semester to make sure no assignment has been plagiarized. This program will check your assignment against their database of resources then produce a percentage match. This percentage will indicate much of your assignment matches the resources available. Each student may submit his or her assignments as drafts prior to final submission to check this percentage.

TENTATIVE SCHEDULE: Revisions may be required - please check Canvas regularly for updates and changes. If changes are made, they will be announced in class. Due dates will only be moved later, not sooner. The Classroom Interactions course materials are organized into 10 modules that are arranged in conjunction with the

Module 1: Course Orientation (1.5 hours)

field component of the course. The 10 modules are:

Module 2: Interactions with content (4-5 hours)

Module 3: Designing for learner-centered instruction (7-8 hours)

Module 4: Preparation, Implementation, and Analysis of Teaching Event 1

(7-9 hours)

Module 5: Teacher-student interactions (4-5 hours)

Module 6: Facilitating student-student interactions (3 hours)

Module 7: Equity in classroom interactions (5-8 hours)

Module 8: Preparation, Implementation, and Analysis of Teaching Event 2 (11-14 hours)

Module 9: Course wrap-up (1 hour)

Module 10: Final Project (5-6 hours)

Bibliography/ Reading List By Topic:

Curriculum:

- Duschl, R. (2008). Science education in three-part harmony: Balancing conceptual, epistemic, and social learning goals. *Review of Research in Education*, *32*. 268-291.
- Hirsch, C. R., & Reys, B. J. (2009). Mathematics curriculum: A vehicle for school improvement. *ZDM Mathematics Education*, *41*, 749-761.

Instruction:

- Chin, C. (2006). Classroom Interaction in Science: Teacher questioning and feedback to students' responses. *International Journal of Science Education*, 28(11), 1315-1346.
- Marshal, J. C., Horton, R., Igo, B. I., & Switzer, D. M. (2009). K-12 science and mathematics teachers's beliefs about and use of inquiry in the classroom. *International Journal of Science and Mathematics Education*, *7*, 575-596.
- McTighe, J., & Brown, J. L. (2005). Differentiated instruction and educational standards: Is Detente posible? *Theory Into Practice*, 44(3), 234-244.
- Wiggins, G., & McTighe, J. (2008). Put understanding first. *Educational Leadership*, 65(8). 36-41.

Equity:

- Anyon, J. (1980) Social class and the hidden curriculum of work. *Journal of Education*, 162(1). Retrieved 1/10/2012 from http://cuip.uchicago.edu/~cac/nlu/fnd504/anyon.htm
- Brotman, J. S., & Moore, F. M. (2008). Girls and science: A review of four themes in the science education literature. *Journal of research in science teaching, 45*(9). 971-1002.
- Cresnoe, R. (2009). Low-income students and the socioeconomic composition of public high schools. *American Sociological Review, 74.* 709-730.
- Kentli, F. D. (2009). Comparison of hidden curriculum theories. European Journal of Educational Studies, 1(2), 83-88.
- Riegle-Crumb, C., & Grodsky, E. (2010). Racial-ethnic differences at the intersection of math course-taking and achievement. *Sociology of Education*, *83*(3). 248-270.
- Stewart, L. (2009). Achievement differences between large and small schools in Texas. *The Rural Educator, 30(2), 20-28. Additional Readings:*
- Johnson, D., Johnson, R., and Holubec, E. (1994). Chapter 3: Essential components of cooperative learning. In *The New Circles of Learning: Cooperation in the Classroom and School* (25-35). Alexandria, VA: ASCD
- Lake, R. (2000). An Indian father's plea. *Teacher Magazine*, 2(1), 48-53.
- Lawson, A.E. (2002). The learning cycle. In R.G. Fuller (Ed). A love of discovery: Science education, the second career of Robert Karplus. New York: Kluwer Academic. (p.51-62).
- Ma, Liping (1999). Introduction and Chapter 1: Subtraction with Regrouping. In *Knowing and teaching elementary mathematics* (pp.xvii- 27) Mahwah, NJ: Lawrence Erlbaum Associates.
- Manouchehri, A., & Lapp, D. (2003). Unveiling student understanding: The role of questioning in instruction. *Mathematics Teacher*, 96 (8), 562-566.
- Pierson, J. (2009). Responsiveness and intellectual work: Characteristics of teachers' discourse that influence student learning, draft submitted to the 2009 Annual Meeting of the American Educational Researh Association.
- Penick, J. (1991). Where's the science? The dos and don'ts of laboratory science. The Science Teacher, May, 27-29
- Rowe, M.B. (1986). Wait time: Slowing down may be a way of speeding up! Journal of Teacher Education, 37(1), 43-50.
- Sadker, D. (2000). Gender equity: still knocking at the classroom door. Equity & Excellence in Education, 33(1), 80-83.
- Scott, P.H., Mortimer, E.F. & Aguiar, O.G. (2006). The tension between authoritative and dialogic discourse: A fundamental characteristic of meaning making interactions in high school science lessons. *Science Education*, 90(4), 605-631.
- Stroup, W. M., N. M. Ares, & A. Hurford (2004). *A Taxonomy of Generative Activity Design Supported by Next-Generation Classroom Networks*. Psychology of Mathematics Education North America. Ontario, Canada. (pp. 837-846)
- Wiggins, G. & McTighe, J. (1998). What is backwards design. In *Understanding by Design* (pp.7-19). Alexandria, VA: ASCD

UNIVERSITY POLICIES

UT Tyler Honor Code

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

For a full list of university policies including information related to the topics listed below, click here.

- Students Rights and Responsibilities
- Campus Carry
- Tobacco-Free University
- Grade Replacement/Forgiveness and Census Date Policies
- State-Mandated Course Drop Policy
- Disability Services
- Student Absence due to Religious Observance
- Student Absence for University-Sponsored Events and Activities
- Social Security and FERPA Statement
- Emergency Exits and Evacuation
- Student Standards of Academic Conduct

UT Tyler Resources for Students:

- UT Tyler Writing Center (903.565.5995), writingcenter@uttyler.edu, http://www.uttyler.edu/writingcenter/
- UT Tyler Tutoring Center (903.565.5964), tutoring@uttyler.edu, https://www.uttyler.edu/tutoring/
- The Mathematics Learning Center, RBN 4021, This is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.
- UT Tyler Counseling Center (903.566.7254) https://www.uttyler.edu/counseling/

University Guidelines, Links and Policies

COLLEGE OF EDUCATION AND PSYCHOLOGY (CEP) VISION AND MISSION

Vision: The CEP will be a global leader in responding to needs in the fields of education, psychology, and counseling, with a focus on the East Texas region, by creating innovative academic and scholarly pathways and partnerships.

Mission: The mission of the CEP is to prepare competent and passionate professionals in the fields of education, psychology, and counseling; to advance knowledge and expertise; and to impact these fields locally, regionally, nationally, and internationally.

UT TYLER'S SCHOOL OF EDUCATION STANDARDS FOR EDUCATOR PREPARATION PROGRAMS

<u>Texas Education Standards</u>: The School of Education are committed to teaching and implementing the Texas Educator Standards at the highest level. The School of Education faculty use the Texas Education Standards, along with the Interstate New Teacher Assessment and Support Consortium (InTASC) standards used by educator preparation programs throughout the United States.

The list of Texas Education Standards can be accessed here.

Access the Code of Ethics and Standard Practices for Texas Educators.