# UTeach Step 2: Inquiry – Based Lesson Design

Spring 2021

Time: Online with occasional ZOOM Meetings (TBD)

Day: Online

Final: April 27, 2021

# **Instructor Information:**

### Michael Odell, Ph.D.

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Office Hours: Online vis Zoom/Phone by Appointment)

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#### **Course Catalog Description:**

An introduction to the theory and practice that is necessary to design and deliver inquiry-based science and mathematics instruction.

Prerequisites/Corequisites: EDUT 1170 Step 1 and an interest in exploring mathematics or science teaching.

## **Course Description:**

This course meets online. The course has been revised to serve as the clinical course in collaboration with STEP 1 to reduce exposure to COVID 19. Students will work on inquiry-based lesson analysis, lesson design, and student assessment. UTeach Tyler students are grouped into teams of two and assigned to either mathematics or a science teacher in a school, to teach inquiry-based lessons. The classroom observations will be video this semester. The teaching requirements represent a major field component and requires at least one, two-hour block of free time during the school day at least once a week. Students will teach lessons with a partner. Step 2 Students will be placed in a 5-12 Classroom.

#### **Student Learning Outcomes:**

- 1. Design and deliver effective 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 Assessment:**

Analyze and reflect on clinical experience, pre/post assessment data, and feedback from other observers (Mentor Teacher, Master Teacher and/or Supervisor) to revise final lesson. Final revisions have to include cited rationales.

## **Course Objectives and Expectations:**

Course Topics and/ or SLO	Activities and Assessment	Standards Alignment		;	
Students 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
Utilize science or mathematics content knowledge to design and teach lessons aligned with district curriculum.	<ul> <li>Written paragraph in each lesson plan that provides background information on the concepts presented, including TEKS</li> <li>Provide accurate content throughout each lesson plan</li> <li>Present accurate content knowledge as observed by the mentor and/or master teacher</li> </ul>	• 1Bi • 1Bii • 3Ai, • 3Bi,ii, iii • 3Ci,ii	<ul><li>1a</li><li>3a</li><li>4ab</li><li>5abc</li><li>6c</li><li>7ab</li></ul>	• Standard 4 • Standard 5	Domain I:     Competency     003



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Utilize exemplary sources to create inquiry-based science and mathematics lessons.	Participation in demonstrations of model lessons selected from exemplary resources     Create challenging inquiry-based lessons     Sources cited in each lesson plan	• 1Di, • 3Ai, iii • 5Di, ii	<ul><li>2c</li><li>4ab</li><li>5abc</li><li>6c</li><li>7ab</li></ul>	• Standard 4 • Standard 7 • Standard 8	Domain III:     Competency     007
Identify the unique attributes of adolescent students, and implement effective teaching strategies.	Participation in a class session, both in person and online that addresses attributes and teaching strategies of adolescents     Create challenging cooperative learning activities for lessons	<ul> <li>1Bi</li> <li>1Ei, Eii</li> <li>2Ai, ii</li> <li>2Bi, ii, iii</li> <li>2Ci, ii, iii</li> <li>4Ai, ii, iii</li> <li>4Bi, ii</li> <li>4Ci, ii, iiii</li> <li>4Di, ii, iiii</li> </ul>	• 2b • 5ab	• Standard 1	Domain I: Competency 001
Design and teach inquiry-based lessons using the 5E Instructional Model.	<ul> <li>Develop inquiry-based lesson plans using the 5E template that include safety recommendations</li> <li>Written feedback by the mentor and/or master teacher for two inquiry-based lessons taught in the school</li> <li>Create challenging cooperative learning activities for lessons</li> <li>Abide by teacher code of ethics and University policy during clinicals</li> </ul>	<ul> <li>1Ai, ii, iii</li> <li>1Bi, ii, iii</li> <li>1Ci, ii, iii</li> <li>1Di, iii</li> <li>1Ei, Eii</li> <li>2Ci, ii, iii</li> <li>4Bi, ii</li> <li>4Di, ii, iii</li> <li>6Di, ii</li> </ul>	<ul><li>1a</li><li>2c</li><li>3a</li><li>4a</li><li>5abc</li><li>6bc</li></ul>	• Standard 5 • Standard 8	Domain I: Competency 003
Discuss strategies for achieving instructional equity.	Participation in class discussions both in person and online and provide evidence in written reflections     Create challenging cooperative learning activities for lessons	• 1Ci • 2Ai, ii • 2Ci	<ul><li>2d</li><li>4d</li><li>5abc</li><li>7ab</li></ul>	• Standard 2 • Standard 3	• Domain II: Competency 005
Design and teach lessons that incorporate the use of technology.	<ul> <li>Participation in technology activities during class and online</li> <li>Incorporate the use of technology to enhance learning</li> <li>Written feedback indicating effectiveness of incorporated technology</li> </ul>	• 1Biii • 1Eiii	<ul><li>1ac</li><li>4abc</li><li>5abc</li><li>7ab</li></ul>	• Standard 7	• Domain III: Competency 009
Use probing questions to elicit feedback to determine students' acquisition of knowledge.	Participation in class discussions both in person and online, on questioning strategies  Create probing questions for lessons  Written feedback from the mentor and/or master teacher following lessons	<ul><li>1Fi, ii, iii</li><li>5Ai</li><li>5Ci</li><li>5Di</li></ul>	• 4d	• Standard 6 • Standard 7 • Standard 8	• Domain III: Competency 007
Use pre/post assessments to evaluate student learning, to provide instructive feedback to middle school students, and as a basis for revising lesson plans.	<ul> <li>Analysis of pre/post assessments to evaluate instruction and student learning</li> <li>Creation of Pre/post assessments to provide immediate feedback for lesson plans</li> <li>Use of pre/post assessment data to revise lesson plan</li> </ul>	<ul><li>1Fi</li><li>5Bi, ii</li><li>5Ci, ii</li><li>5Di</li></ul>	• 7abc	• Standard 6	Domain III:     Competency     010
Provide instructive feedback to peers.	<ul> <li>Written feedback provided to peers who present during class</li> <li>Written feedback to teaching partner</li> </ul>	● 6Bi, ii	• 4d • 7c	• Standard 10	<ul><li>Domain IV: Competency 012</li></ul>

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Reflect on teaching	Student essays produced after observation	• 6Ai	• 1abc	<ul> <li>Standard</li> </ul>	Domain IV:
experiences to revise	and teaching experiences	• 6Aii	• 2a	10	Competency
lesson plans.	One revised lesson plan submitted as a final	• 6Aiii	• 7bc		012
	product				
	<ul> <li>Essay providing rationale for revisions to</li> </ul>				
	the lesson plan in final project				

Activities	Percent	
Attendance- (Class in Online)		
Class Assignments (See Canvas)	15%	
Discussion Boards	15%	
Clinical Field Work	55%	
Observation Hours and Reflections- (8 Hours)  Failure to complete observations will result in a failing grade for the course regardless of average.		
Teaching (4 Hours), as evidenced by the Lesson Plan and Reflections. (I will also get feedback from School) Important: Teaching these Four lessons is a required component of Step 2. Failure to teach these required lessons will result in a failing grade for the course regardless of average.		
Teacher Interview: (Dr. Odell will arrange)		
Semester Field Log documenting FOUR Observations and TWO Teaches (min 6 hours) complete, signed daily and submitted to instructor at end of semester via canvas		
<b>Final Assessment Project/Test/Portfolio</b> - The final project will include an analysis and reflection on the semester's teachings and feedback from other observers. <i>More specific requirements will be outlined in class.</i>		
TOTAL	100%	

<b>Evaluation and Grading:</b>				
Grade	Points	Percent		
Α	90-100	90-100%		
В	80-89	80-89%		
С	70-79	70-79%		
D	60-69	60-69%		
F	0-59	< 59%		
Last Day to Withdraw: March 29				

# **Related Field Experiences:**

In Step 2, pairs of students will be assigned to a school classroom to teach 4 lessons during the semester. Over the course of the semester, pairs will visit this classroom via zoom to teach inquiry-based lessons or provide small group instruction via zoom. Policies and procedures will be explained in class. Failure to follow these policies and procedures can jeopardize your class status. Your instructor or a teacher will view lesson and provide you feedback. Your instructor will work with the school to get feedback on how your lesson was implemented and received.

If you have a serious emergency causing you to miss your scheduled teaching day, notify your partner, your Teacher, <u>and</u> your Instructor as soon as possible. Your partner will teach the lesson alone and you will be required to make up the missed teaching day. <u>Regardless of your final average, failure to teach the required lessons and/or incomplete observation hours will result in a failing grade for the course.</u>

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Supplies are available for you to borrow for use in your lessons from the UTeach Workroom. If you require help with reserving or ordering supplies, it is your responsibility to let your instructor know at least five days in advance.

#### As representatives of UTeach Tyler, we expect you to be professional when participating in your field experiences.

- You are expected to observe ALL school rules, policies, and procedures.
- <u>Sign in/out</u> at the front office of the school each day that you visit. Some schools will provide you with a sticker or badge that identifies you as a visitor. If you are given this kind of identification, wear it.
- <u>Dress professionally</u>. The school has a dress code for teachers, student teachers, and others in field placements. As guest teachers, you are expected to follow <u>all parts of the school dress code</u>. Of particular note is the restriction against wearing jeans, flip flops, jewelry in visible pierced areas other than the ear, t-shirts, shorts, or exercise clothing. For a complete description of this policy, please see the Canvas community for education.
- Arrive at least <u>30 minutes</u> before your scheduled teaching time; arrive <u>1 hour</u> before a technology or lab-based lesson to set up and troubleshoot equipment.
- Practice every aspect of your lesson before you teach it.
  - Decide exactly how you and your partner will share the teaching responsibilities of the co-teach lesson.
  - Make a plan for how you will transition from each part of the lesson to the next.
- Learn and use the names of your students! Make nametags or nameplates and bring them with you to each lesson. This is an easy and effective classroom management technique.

#### **Course Policies:**

#### 1. Attendance and Participation

A large portion of your grade is based on active participation in all class sessions and assignments. Credit for attendance requires logging in weekly and completing assignments on time, participating in all class discussions (not last-minute posts).

Attendance via zoom when we have live zoom meetings is a crucial component of this class because during this time you will: 1) plan and practice your lessons with your partner; 2) get feedback from the Instructor and other members of the class; and 3) observe and learn from demonstration lessons (if applicable). The workload for each lesson should be shared equally. If you are not participating, you inconvenience your partner by forcing him or her to do additional work. Students should use zoom or facetime to collaborate.

#### 2. Late Work

There will be a deduction of 10% per day (max of 50%) for any assignment turned in late unless future arrangements have been made with the Instructor.

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#### **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 <u>here</u>.

- 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), <u>writingcenter@uttyler.edu</u>, <u>http://www.uttyler.edu/writingcenter/</u>
- 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) <a href="https://www.uttyler.edu/counseling/">https://www.uttyler.edu/counseling/</a>

University Guidelines, Links and Policies

# COLLEGE OF EDUCATION AND PSYCHOLOGY (CEP) VISION AND MISSION

**Vision:** The College of Education and Psychology is nationally recognized and respected for its academic programs and opportunities. It is a center of academic excellence, scholarly inquiry, and public service. The College prepares leaders to meet the critical challenges of the 21<sup>st</sup> Century through productive contributions to local and global communities and toward individual and cultural equity.

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**Mission:** The mission of the College of Education and Psychology is to provide a positive environment that fosters the acquisition of knowledge and skills. The mission is individually and collectively realized through a community of scholars that contributes to knowledge through scholarly inquiry; organizes knowledge for application, understanding and communication; and provides leadership and service. We affirm and promote global perspectives that value individual and cultural diversity to enhance learning, service, and scholarship.

#### 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 <u>Texas Education Standards</u> can be accessed <u>here</u>.

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