Course ID	EDEE 3330_020
Course Name	Teaching Science EC-6
Instructors' Name	Dr. Mila Rosa L. Carden (she, her, hers)
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DEPARTMENT OF TEACHER EDUCATION AND ADMINISTRATION: PREPARING TOMORROW'S EDUCATORS AND SCHOLARS

The **Department of Teacher Education and Administration** seeks to improve educational practice through the generation of knowledge and to prepare education professionals who serve all students in an effective, inclusive, and equitable manner. Its focus is on the preparation of highly competent educators, researchers, and administrators who employ current theory and research as they fill these important roles.

Mission

The Department of Teacher Education and Administration integrates theory, research, and practice to generate knowledge and to develop educational leaders who advance the potential of all learners.

Vision

We aspire to be internationally recognized for developing visionary educators who provide leadership, promote social justice, and effectively educate all learners.

COMMITMENTS

While teaching has always been a relational and intellectual endeavor, we acknowledge that *teaching is also both an ethical and a political act.* We recognize that many of the practices and traditions in schools today perpetuate long-seated historical and social oppressions. These social inequities are structural *and* socially constructed along dimensions of intersecting identities, including, but not limited to, race, color, ethnicity, national origin and identity, dis/ability, gender identity and expression, sex, sexual orientation, religion, immigration status, language, social class, age, and genetic orientation.

It is through our radical imaginations that we can create spaces for critical inquiry and engagement in schools at multiple levels: intellectual, ethical, physical, social, emotional, ecological, and aesthetic. We envision classrooms to be inclusive places that serve as complex and just ecosystems that allow for multiple identities, modes of expression, and ways of engagement to thrive together. We do this because we are committed to dismantling oppression. Teachers play an important role in this movement. Our teacher education program supports the development of core values related to:

- **Identity.** Preparing teachers who have agency and critically reflect on their lived experiences and identities as a way of informing their professional knowledge and humanizing pedagogies.
- **Inquiry.** Preparing teachers who value and inquire into the complex identities, as well as intellectual and transformational capacities, of children and youth.
- **Activism.** Preparing teachers who create curriculum that responds to children's and youth's inquiries and identities, as well as the sociopolitical and socioeconomic conditions of the world outside of schools—in neighborhoods, communities, and society-at-large.
- **Community.** Preparing teachers who recognize and honor the unique sociocultural experiences and communities of children and youth with whom they work.

We commit to teaching and teacher preparation that takes a transformative stance toward school change. We believe—acting in solidarity with teachers, children, youth, school leaders, and communities—we can radically reimagine and reconstruct schools and, thus, our society.

Teacher Preparation at The University of North Texas

Core Commitments

Commitments->	As Teachers	To Children and Youth	In our Practice	To Radically Imagine
Identity	**We are** individuals with cultural histories, knowledge, talents, and interests that we use as resources in our teaching.	**We value** and nurture the love, grace, humor, compassion, creativity, patience, joy, and peace young people bring into our teaching spaces.	**We practice** humanizing pedagogies that are asset-based, equitable, and appreciative of who we are and who we are becoming.	**We imagine** schools as spaces where teachers are encouraged and given space to be different in what they do with young people and their communities.
Inquiry	**We are** intellectuals with a deep understanding of academic content, curriculum	**We value** young people's knowledge, creativity, curiosity, aesthetics, imagination, and	**We practice** curriculum as critical inquiry and research where children and youth	**We imagine** a curriculum in schools that is shaped by societal goals and influenced daily by

	development, and flexible pedagogies.	embodied ways of being as essential, educative and liberating	are positioned as capable, knowledgeable and social agents for change.	events unfolding in the world around us.
Advocacy & Activism	**We are** activists working against injustice for young people, teachers, and communities rooted in racism and other forms of discrimination.	**We value** and embody caring in all its forms – personal, social, cultural, linguistic, and ecological – as essential to growing a positive learning and living environment.	**We practice** activism in the curriculum by engaging children and youth in work that contributes to the creation of more just, more caring, and more peaceful world.	**We imagine** metaphors for schools as nurturing spaces for the whole individual rather than as efficient factories or businesses that produce products and profit.
Communities	**We are** members of multiple communities—connected in ways that make our successes intertwined.	**We value** inclusive learning communities that connect us within and outside of our classrooms.	**We practice** humility through our vulnerability; hope in the face of adversity, and resilience in response to our efforts that have fallen short.	**We imagine** schools as sustaining intersecting ways of being, knowing, and languaging.

Course Prerequisites

Prerequisite(s): Admission to teacher education program. Corequisite(s): EDRE 3350 and EDEE 3340.

Course Description

EDEE 3330: 3 hours. Science Grades EC-6

Subject matter background and material organization for an integrated science program in the primary/elementary school. Students experience firsthand the scope and sequence of science education in an elementary school setting. Students' assignments and discussions are grounded in creating lesson plans and experiences inclusive of marginalized communities, focusing on bringing social justice and activism into the science classroom.

Course Structure

EDEE 3330-Teaching EC-6 a is a face-to-face, 15-week course, 2hrs and 50-minute long per session. All assignments have due dates; please refer to the course schedule included in this

syllabus. All sessions will be at Matthews Hall, Rm 111 (change of venue will be promptly communicated). Each session includes one module with a focused topic that will last for a week. If there are meritorious reasons (e.g., suspension of classes), module coverage will be extended to the next session/s. All readings will be uploaded to Canvas.

Course Objectives

Within the course, you will understand how to:

1) develop content and pedagogical knowledge as a means of teaching science to K-6 students.
2) develop sufficient knowledge to articulate connections among content, pedagogy, and curriculum standards.
3) plan and execute science lessons and activities in K-6 classrooms.
4) make appropriate decisions in the assessment, management, and organization of K-6 science classrooms.
5) design and execute science inquiry lessons based on Texas Essential Knowledge and Skills.
6) integrate the 5E learning cycle in lesson plans.
7) design and execute lesson plans integrating the nature of science.
8) organize and implement lessons with appropriate progression and support for (all) learners.

Learning Outcomes

By the end of this course, and with the support of your instructor, you will:

1. demonstrate professional skills, knowledge, and attitudes as outlined in the Texas Teachers Proficiencies
2. identify appropriate science materials, lessons, and strategies for your selected grade level to plan and teach Science Content in the Texas Essential Knowledge and Skills.
3. plan, develop, and implement inquiry-learning activities/lessons using the 5E learning cycle.
4. incorporate evidence-based science practices and safe science practices in lesson plans and implementations.
5. design/modify activities to support equitable and inclusive science learning for students of color and other underrepresented populations of learners.

Pedagogy and Professional Responsibility Standards (PPR)

- Knows and understands the importance of the state content and performance standards as outlined in the TEKS.
- Uses the TEKS to plan instruction.
- Knows and understands the importance of designing instruction that reflects the TEKS through Grade 6.

- Plans instructional activities that progress sequentially and support stated instructional goals based on the TEKS through Grade 6.
- Knows the connection between the statewide Texas assessment program, the TEKS through Grade 6, and instruction.
- Standard I: Domain I: Competency 001-004 Domain III: Competency 007-010: The teacher designs instruction appropriate for all students that reflects an understanding of relevant content and is based on continuous and appropriate assessment.
- Standard II: Domain II: Competency 005-006: The teacher creates a classroom environment of respect and rapport that fosters a positive climate for learning, equity, and excellence.
- Standard III: Domain III: Competency 007-010: The teacher promotes 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 and high-quality feedback.
- Standard IV: Domain IV: Competency 011-013: The teacher fulfills professional roles and responsibilities and adheres to the legal and ethical requirements of the profession.
- Technology Applications Standard I: Domain III: Competency 007-010: All teachers use technology-related terms, concepts, data input strategies, and ethical practices to make informed decisions about current technologies and their applications.
- Technology Applications Standards II: Domain III: Competency 007-010: All teachers identify task requirements, apply search strategies and use the current technology to efficiently acquire, analyze and evaluate a variety of electronic information.
- Technology Applications Standard III: Domain III: Competency 007-010: All teachers use task-appropriate tools to synthesize knowledge, create and modify solutions and evaluate results in a way that supports the work of individuals and groups in problem-solving situations.
- Technology Applications Standard IV: Domain III: Competency 007-010: All teachers communicate information in different formats and for diverse audiences.
- Technology Applications Standard V: Domain III: Competency 007-010: All teachers know how to plan, organize, deliver and evaluate instruction for all students that incorporates the effective use of current technology for teaching and integrating the Technology Applications Texas Essential Knowledge and Skills.

Curriculum Topics

- Code of Ethics per Chapter 247: Domain II, IV
- TEKS organization, structure, and skills: Domain I, III
- State assessment of students (STARR Responsibilities): Domain I, II, IV
- Curriculum development and lesson planning: Domain I, II, III
- Classroom assessment for instruction/diagnosing learning needs: Domain I, III

- Instructional technology: Domain I, III
- Pedagogy/Instructional strategies: Domain I, III, IV
- Differentiated instruction: Domain I, II, III, IV
- Classroom Management: Domain II, IV

REQUIRED FIELD HOURS If Applicable

Prerequisite(s): admission to the teacher education program, which includes participation in a field-based program, EDEE 3320, 3380; all courses in the reading/English/language arts part of the academic major (visual art, music, and theatre arts); and required core and academic major science courses. This course is to be taken PDS1.

Materials

No textbook is required. All required readings and materials are found in Canvas.

UNT Course Policies

Face Coverings
UNT encourages everyone to wear a face covering when indoors, regardless of vaccination status, to protect yourself and others from COVID infection, as recommended by current CDC guidelines. Face covering guidelines could change based on community health conditions.

Attendance: This course is designed and organized to be highly collaborative and interactive. Our sessions will involve small and whole group activities and discussions. Therefore, your attendance and participation are essential to the learning of everyone in our course. It is very difficult to be enriched by discussions and collaborations if you are not physically present or prepared for class. Per university policy 06.039, an excused absence falls under the following categories:

- religious holy day, including travel for that purpose;
- active military service, including travel for that purpose;
- participation in an official university function;
- illness or other extenuating circumstances;
- pregnancy and parenting under Title IX; and
- when the University is officially closed.

If you cannot attend a class for any reason (including those not listed above), please notify me **as soon as possible**. Likewise, for reasons not listed above where a missing class is unavoidable, please let me know so we can devise an alternate plan. ***It is my discretion to excuse absences for reasons not listed above***, and you must communicate with me.

Attendance and participation in this class are required. Our class time will consist of many small groups and a whole class discussion. You are a vital part of a learning community, and your contributions are part of the knowledge that we create in our classroom. Therefore, we need you here as often as you are able.

When you can't be in class, I expect you to let me know ahead of time if you can. Missing more than two class periods or missing any class without contacting the instructor will affect the participation portion of your grade and may warrant further administrative action. You are still responsible for turning in assigned work if you are absent.

0 – 1 unexcused absence 10 points
2 unexcused absences 7 points
3 unexcused absences 3 points
4 unexcused absences F in the course

You are also expected to arrive at class on time and not leave before the end of the course. **Three instances of arriving more than 15 minutes late or leaving 15 minutes early will result in one unexcused absence**. Coming to class late or leaving early for the reasons listed above for excused absences will be counted as excused. Again, be sure to communicate with me in those instances.

Communication. One of the critical indicators of your success in this class is communication. Please email me any concerns about the class (e.g., assignments, readings) and personal concerns or questions about this class. I will respond to your email within 48 hours. If it is urgent, please indicate as the SUBJECT of your email. If you need to talk to me in person, see me on the consultation hours set for this class. I prefer in-person meetings, but if the in-person consultation hours do not work with your available time, you can set a Zoom meeting with me. For Zoom meetings, make an appointment two days before your desired meeting. Please come on time during in-person and Zoom consultation/meetings. Your success is important to me, so I HIGHLY encourage you to use these consultation hours for all your class-related concerns.

Guidelines for communicating online or face-to-face: Remember these tips when interacting with your peers and me.

- Treat your instructor and classmates with respect in email or any other communication.
- Always use your professors' proper title: Dr. or Prof., or if in doubt, use Mr. or Ms.
- Unless specifically invited, don't refer to your instructor by the first name.
- Use clear and concise language.
- Remember that all college level communication should have correct spelling and grammar (this includes discussion boards).
- Avoid slang terms such as "wassup?" and texting abbreviations such as "u" instead of "you."

- Use standard fonts such as Ariel, Calibri or Times New Roman and use a size 10 or 12 point font
- Avoid using the caps lock feature AS IT CAN BE INTERPRETED AS YELLING.
- Limit and possibly avoid the use of emoticons like :) or ☺.
- Be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post and your message might be taken seriously or sound offensive.
- Be careful with personal information (both yours and other's).
- Do not send confidential information via email.

Source: Online Communication Tips (https://clear.unt.edu/online-communication-tips)

Use of Digital Devices (e.g., Laptop, cell phone, iPad)

- As a matter of professional courtesy, please set *any cell phone(s)* in *silent mode* before class begins and keep them in this mode until class is over; no texting. If you need to take an emergency call, please step out of the room to take the call. No need to ask permission.

- The use of laptops may take your attention away from meaningful classroom experiences. Please be responsible when using your laptops and iPads.

<div align="center">Course Requirements</div>

Assignment Description

Science and Me Story:

Objective: Describe your past and current experiences with science learning and teaching.
Description: Tell the story of your experiences in science from childhood to adulthood, both in and outside of school. When writing your story, refer to the following guide questions:
1. When and how did you first learn about science? What were the emotions associated with this experience, and why? (e.g., excited, scared, etc.) This experience may be within formal or informal settings.
2. What do you remember most in your elementary/high school science? (i.e., lessons, teacher, science activities) Explain why.
3. What and how do you want your science learning to be?
4. What and how do you want to teach science to your future students?
5. What do you think is equitable science learning and teaching?
FORMAT of your story: You can submit in any form that you like: you can create a song, or poem, write a narrative story, draw your story, create a digital story, or any other way you feel comfortable doing it.

Lead Learning Activity

Objective: To reflect on the assigned reading and lead the class discussion

LLA is a 20-minute activity that will help your peers make sense of the assigned reading. You and your partner will provide the class **key ideas** about the chosen reading in any way you think appropriate. *You*

may provide a supplementary reading to the class if you think it will be helpful to understand the reading material. This additional reading will be assigned to them after the discussion.

Be creative in leading the session. Think of a strategy to encourage an interactive class discussion. I hope that you can use this strategy in your future classes. Be sure to **provide prompt questions and discussion questions appropriate for your topic. The emphasis is on science teaching strategies**. There is no need to include all possible ideas or applications. Instead, you should **emphasize the most essential and meaningful concepts and applications for your and your peers' science instruction.** *ALL are responsible for understanding the readings and contributing to the class discussion in a meaningful and reflective way, whether you are leading the class activity/discussion or a participant. You will be graded based on the following rubric.*

Scoring Guide for LLA

Component	A (15-14 pts)	B (13-12)	C (11-10)	D (10 and below)
Key concepts	Addressed at least **three** concepts, clearly stated and explained	Addressed **2** Concepts clearly stated and explained	Addressed one concept, clearly stated but missing details of explanation.	Addressed one concept, not clearly stated, and no explanation
Reflection & Understanding	Activity/discussion supports meaningful, substantive reflection & teacher understanding of key concepts. Creative and engaging!	Activity/discussion supports somewhat meaningful reflection of class and teacher understanding of key concepts. Somewhat creative and engaging!	Activity/discussion supports mostly surficial understanding of key concepts addressed. Mostly leader(s) restated information.	Activity / discussion supports Superficial information on key concepts addressed. Leader(s) restated information from key concepts and did not extend beyond.

Late Assignments: Late assignments will be accepted if submitted four days after the due date. You are expected to turn in quality work; therefore, if you need more time to work on your assignment, I will provide you with that time. You will get zero for assignments turned in after the four day-allowance. If you need more than five days due to meritorious reasons, please see me so we can discuss alternative options for you.

NO late submission for in-class assignments unless we ran out of time during our class session.

Course Assignments

Assignment Title	Points Possible	% of Final Grade	Due Date
Science and Me Story (Pre &Post)	40	20%	Sept 5, 11:59PM/Dec 6, 11:59 PM
Draw a scientist and a science teacher	40		Aug 30, 2:50 PM/ Nov 29, 11:59 PM
STAAR (pre and Post)	76		Sept 4, 11:59 PM/Dec 6, 2:50PM
VNOS-D+ (Pre and Post)	40		Sept 6, 2:50 PM/ Dec 7, 11:59 PM
Draw an Engineer	40		Oct 11, 2:50PM/ Nov 29, 11:59 PM
Lead Learning Activities	15		ongoing
Science Notebooks	50		Dec 6, 2:50 PM
First Draft of Lesson Plan	30	30%	Oct 11, 11:59 AM
Final Lesson Plan	30		Oct 25, 11:59AM
Microteaching (Professor and Peers)	60	30%	ongoing
Student evaluates			
Class Participation/Professionalism	20	10%	ongoing
Attendance	10		ongoing
Final Exam	100	10%	Dec 6, 2:50 pm
Total Points Possible	**551**	100%	

Course Schedule: *Please note that this schedule may change to meet students' needs and unprecedented circumstances better.*

Wk	Date	Topic	Readings	Assignments (In-class (IA); Homework (HW)
1	08/30	Course Introduction and Class Canvas	<u>NSTA/ASTE Standards for Science Teacher Preparation</u>	• Draw a scientist and a science teacher (IA). • Assigned readings for the next meeting (HW) • Science and Me Story (HW)Due Date: Sept 5, 11:59 AM
2	09/06	The Nature of Science and Citizen Science	• <u>Jarvis, C. (2020).</u> • <u>National Academies of Sciences, Engineering, and Medicine (2021)</u>	• STAAR Test (IA) • VNOS-C or D+ (IA) • <u>What is Citizen Science</u> (Video, less than 2 minutes) (HW) • Citizen Science Registration (<u>Zooniverse</u>)/select a project to join HW) • Assigned Readings for the next meeting • Lead Learning Activity (selected students) Due Date: Sept 13, 11:59AM
3	09/13	Frameworks for Science Instruction	• <u>Hodson, D. (2014).</u> • <u>NSTA Position Statement: Transitioning from Scientific Inquiry to Three-Dimensional Teaching and Learning</u>	Citizen science activity (IA) 1st Lead Learning Activity (IA) Assigned Readings for the next meeting (HW)
4	09/20	Trends in Science Education: Ambitious Science Teaching	• <u>The Vision of Ambitious Science Teaching</u> • <u>Core Science Teaching Practices</u>	Citizen science activity (IA) Design Ambitious Science Teaching (IA) Assigned Readings (HW)
5	09/27	Trends in Science Education: Culturally	• <u>Mensah, F. M. (2021)</u> • <u>Greenberg, D. (2017)</u>	Citizen science activity (IA) 2nd LLA (IA)

		Responsive Science Teaching		Assigned Readings (HW)
6	10/04	Assessments in Science: Creating Equitable Assessments in Science Instruction	• Guide to Implementing the Next Generation Science Standards (2015): Assessment • Fine, C. G. M., & Furtak, E. M. (2020) Supplemental Readings: Position Statement Gender Equity in Science Education	Citizen science activity (IA) Science Safety Quiz (IA) Assigned Readings (HW) Science Safety Quiz (IA)
7	10/11	Engaging Multilingual Learners in Three-Dimensional Science	• Design Principles for Engaging Multilingual Learners in Three-Dimensional Science • Position Statement Science for English Language Learners	3rd LLA (IA) (4 students) Assigned Readings (HW) 4th LLA (IA)
8	10/18	STEM/Engineering Education and Project Based-Learning	• Texas STEM Education Framework • Green T. (2021) Supplemental Readings: • APPENDIX I – Engineering Design in the NGSS • Position Statement Teaching Science in the Context of Societal and Personal Issues • Position Statement STEM Education Teaching and Learning • Thornburgh, W., McFadden, J., & Robinson, B. (2020)	Draw an Engineer (IA) Assigned Readings (HW) 5th LLA group (IA)
9	10/25	Misconceptions in Science and Science Literacy	• Keeley, P. (2012) • Ashbrook, P. (2020) • Zucker, A. (2021)	Assigned Readings (HW)

10	11/01	Microteaching	Supplemental Readings in Canvas	Six students (30 minutes each)
11	11/08	Microteaching	Supplemental Readings in Canvas	Six students (30 minutes each)
12	11/15	Microteaching	Supplemental Readings in Canvas	Five students (30 minutes each)
13	11/22	ASYNCHRONOUS LEARNING SESSION	**READINGS: Please Read (In Canvas):** • Remote Learning Resource • Science explorations to do at home • Position Statement Parent Involvement in Science Learning • Science At Home • Why can I see my breath on cold days?	Science and Me Story (Post) (HW) Due date: Dec 1, 11:59 pm
14	11/29	Microteaching	In-Class Assignments Draw a scientist and a science teacher, and engineer (Post)	Five students (30 minutes each) Due Date: Dec 6, 11:59 am
15	12/06	FINAL EXAM (TBA) Course Reflection	STAAR Posttest (IA) Final Reflection (HW)	FINAL Due date: Dec 8 at 11:59 pm

Grading

A = 90%-100%

B = 80-89

C = 70-79

D = 60-69

F = below 60%

Science Lesson Plan Template

List the appropriate TEKS.	
Science Content (Big Ideas: Definitions, Facts, Process/Integrated Skills, Explanations, etc.)	
List the science content described in the lesson.	
Learning Objective(s):	
List the objectives stated and described in the lesson.	
Relevant ELPS - Language Objective(s):	
List the relevant ELPS described in the lesson: Reading, Writing, Listening, Speaking.	
Relevant TX CCRS:	
List the relevant TX CCRS.	
Assessments:	
Diagnostic Assessment/s: List the name/s of the diagnostic assessment/s described in the lesson.	
Formative Assessments: List the name/s of the formative assessment/s described in the lesson.	
Summative Assessment: List the name of the summative assessment described in the lesson.	
5E Learning Cycle:	
List the safety rules and regulations described in the lesson.	
Engage	*Briefly describe how students' prior knowledge is assessed.*
Explore	*Briefly describe the inquiry activity.*
Explain	*Briefly describe the students' explain activity.*
	Briefly describe the teacher's explain activity.
Elaborate	*Briefly describe the activity/activities within which students apply their newly constructed science content knowledge.*
Evaluate	*Briefly describe the evaluation activity/activities.*
Language Modification(s):	
Briefly describe the ELL strategies described and used in Engage, Explore, Explain, Elaborate, and Evaluate where appropriate. *If no ELL strategies are described and used, please list and describe TWO appropriate modifications.*	
Diversity and Equity (Accommodations, Modifications, Adaptations)	
List and describe the appropriate accommodation, modifications, and adaptations with Diversity and Equity Used in Engage, Explore, Explain, Elaborate, and Evaluate where appropriate.	

If there are no appropriate accommodations, modifications, or adaptations concerning Diversity and Equity described and used, please list and describe TWO appropriate modifications.	
Materials and Resources:	
List all materials used to teach the science content described in the lesson	

Microteaching Scoring Guide

Name:	Points
Lists and States the Learning Objective(s):	
At least **3 measurable objectives** are listed and stated.	3
Comments:	
Lists and States the Language Objective(s):	
Language Objective(s) include the following **actions**: reading, writing listening, speaking	4
Comments:	
Assessments:	
Diagnostic Assessment/s: An **identified diagnostic assessment** is used to assess students' prior knowledge in *Engage*.	2
Formative Assessments: More than one **identified formative assessment** is used to assess students' knowledge construction throughout *Explore* and *Explain* **– max 3 identified formative assessments.**	3
Summative Assessment: Students are presented with an identified summative assessment with a **rubric/answer scheme** at the end of Microteaching	2
Comments:	
5E Learning Cycle:	
Engage — **Assesses** students' **prior knowledge.**	5
Comments:	
Explore — Includes an **inquiry activity** and integrates the NGSS **Scientific and Engineering Practices**	5
Comments:	
Explain — Includes **Students' Explain Activity**: Students explain concepts and definitions (in their own words).	5
Includes **Teacher Explanation** that effectively utilizes Lectures/Direct Instruction and includes PowerPoint Slides; Concept Maps, etc. to **teach** and **reinforce** scientific explanations and vocabulary.	5

Comments:			
Safety	**Safety Rules and Regulations** are listed when and/or where appropriate within the 3 phases, ***Engage, Explore***, and ***Explain*** during Microteaching.		**5**
Comments:			
Language Modification(s):			
Integrates ELL strategies within the 3 phases, ***Engage, Explore,*** and ***Explain*** during Microteaching**.**			**6**
Comments:			
Diversity and Equity			
Integrates the appropriate accommodations, modifications, and adaptations in relation to Diversity, Equity, and Inclusion within the 3 phases, ***Engage, Explore,*** and ***Explain during*** Microteaching.			**6**
Comments:			
Technology			
Integrates the appropriate use of **technology** for instruction and/or student learning			**4**
Total			**60**

DEPARTMENT SYLLABUS STATEMENTS

Foliotek ePortfolio (where applicable). Foliotek is a software data management system (DMS) used in the assessment of your knowledge, skills, and dispositions relevant to program standards and objectives. You will be required to use your Foliotek account for the duration of your enrollment in the College of Education in order to upload required applications, course assignments, and other electronic evidence/evaluations as required. This course may require assignment(s) to be uploaded and graded in Foliotek. The College of Education will track your progress in your program through this data to verify that you have successfully met the competencies required in your program of study. All students must register in the program portfolio that aligns with their degree plan. Registration codes and tutorials can be found on this site: https://coe.unt.edu/educator-preparation-office/foliotek

EDUCATOR STANDARDS

In order to recommend a candidate to the Texas Education Agency, the UNT Educator Preparation Program curriculum includes alignment to standards identified by the State Board of Educator Certification (SBEC). These standards are assessed throughout your preparation and through the TExES Certification exams required for your teaching certificate. The Texas State Board for Educator Certification creates standards for beginning educators. These standards are focused upon the Texas Essential Knowledge and Skills, the required statewide school curriculum. Additionally, the Commissioner of TEA has adopted rules pertaining to Texas teaching standards:

TEXAS TEACHING STANDARDS

Standards required for all Texas beginning teachers fall into the following 6 broad categories:

(1) Standard 1--Instructional Planning and Delivery.
   a. Standard 1Ai,ii,iv
   b. Standard 1Bi,ii (Lesson design)
(2) Standard 2--Knowledge of Students and Student Learning
(3) Standard 3--Content Knowledge and Expertise
(4) Standard 4--Learning Environment
(5) Standard 5--Data-Driven Practice
(6) Standard 6--Professional Practices and Responsibilities

Full description of the standards and competencies can be accessed using this link: Texas Teaching Standards Adopted in Chapter 149

EDUCATOR STANDARDS FOR EC-6 CORE SUBJECTS:
A full description of the standards and competencies can be accessed using this link:
https://tea.texas.gov/texas-educators/preparation-and-continuing-education/approved-educator-standards

SCIENCE GENERALIST EC–6 STANDARDS

- Standard I. The science teacher manages classroom, field, and laboratory activities to ensure the safety of all students and the ethical care and treatment of organisms and specimens.
- Standard II. The science teacher understands the correct use of tools, materials, equipment, and technologies.
- Standard III. The science teacher understands the process of scientific inquiry and its role in science instruction.
- Standard IV. The science teacher has theoretical and practical knowledge about teaching science and about how students learn science.
- Standard V. The science teacher knows the varied and appropriate assessments and assessment practices to monitor science learning.
- Standard VI. The science teacher understands the history and nature of science.
- Standard VII. The science teacher understands how science affects the daily lives of students and how science interacts with and influences personal and societal decisions.
- Standard VIII. The science teacher knows and understands the science content appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) in physical science.
- Standard IX. The science teacher knows and understands the science content appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) in life science.

- Standard X. The science teacher knows and understands the science content appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) in Earth and space science.
- Standard XI. The science teacher knows unifying concepts and processes that are common to all sciences.

TEXAS ESSENTIAL KNOWLEDGE AND SKILLS

The following TEKS are addressed in this course. The Texas Essential Knowledge and Skills can be accessed on the Texas Education Agency Web site using the A-Z index at the following URL: https://tea.texas.gov/academics/curriculum-standards

- Science TEKS, Texas Administrative Code, Chapter 112
- Science | Texas Education Agency
  - SUBCHAPTER A ELEMENTARY (Grades K TO 5)
  - SUBCHAPTER B (Grade 6)

ENGLISH LANGUAGE PROFICIENCY STANDARDS (ELPS)

This course incorporates the ELPS in lesson planning and instructional delivery in order to improve language acquisition and content area knowledge of students who are English learners. The ELPs will be implemented by teacher candidates during instruction of the subject area for students who are English learners. The ELPs can be accessed via the Texas Education Agency using the following link:
http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html#74.4.

TEXAS COLLEGE AND CAREER READINESS STANDARDS

The Texas College and Career Readiness Standards can be accessed at the Texas Higher Education Coordinating Board Web site using the following link:
http://www.thecb.state.tx.us/index.cfm?objectid=EADF962E-0E3E-DA80-BAAD2496062F3CD8

TECHNOLOGY APPLICATIONS

Technology Applications (All Beginning Teachers, PDF). The first seven standards of the Technology Applications EC-12 Standards are expected of **all** beginning teachers and are incorporated into the Texas Examination of Educator Standards (TExES) Pedagogy and Professional Responsibilities (PPR) test.

Technology Applications Standards

- Standard I. All teachers use and promote creative thinking and innovative processes to construct knowledge, generate new ideas, and create products.

- Standard II. All teachers collaborate and communicate both locally and globally to reinforce and promote learning
- Standard III. All teachers acquire, analyze, and manage content from digital resources. Standard IV. All teachers make informed decisions by applying critical-thinking and problem-solving skills.
- Standard V. All teachers practice and promote safe, responsible, legal, and ethical behavior while using technology tools and resources.
- Standard VI. All teachers demonstrate a thorough understanding of technology concepts, systems, and operations.
- Standard VII. All teachers know how to plan, organize, deliver, and evaluate instruction for all students that incorporates the effective use of current technology for teaching and integrating the Technology Applications Texas Essential Knowledge and Skills (TEKS) into the curriculum. Standard VIII. The computer science teacher has the knowledge and skills needed to teach the creativity and innovation; communication and collaboration; research and information fluency; critical thinking, problem solving, and decision making; digital citizenship; and technology operations and concepts strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in computer science, in addition to the content described in Technology Applications Standards I–V.
- Standard IX. The digital forensics teacher has the knowledge and skills needed to teach the creativity and innovation; communication and collaboration; research and information fluency; critical thinking, problem solving, and decision making; digital citizenship; and technology operations and concepts strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in digital forensics, in addition to the content described in Technology Applications Standards I–V.
- Standard X The digital art/animation teacher has the knowledge and skills needed to teach the creativity and innovation; communication and collaboration; research and information fluency; critical thinking, problem solving, and decision making; digital citizenship; and technology operations and concepts strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in digital art/animation, in addition to the content described in Technology Applications Standards I–V.
- Standard XI. The robotics teacher has the knowledge and skills needed to teach the creativity and innovation; communication and collaboration; research and information fluency; critical thinking, problem solving, and decision making; digital citizenship; and technology operations and concepts strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in robotics, in addition to the content described in Technology Applications Standards I–V.
- Standard XII. The digital communications teacher has the knowledge and skills needed to teach the creativity and innovation; communication and collaboration; research and information fluency; critical thinking, problem solving, and decision making; digital citizenship; and technology operations and concepts strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in digital communications, in addition to the content described in Technology Applications Standards I–V.

- Standard XIII. The Web design teacher has the knowledge and skills needed to teach the creativity and innovation; communication and collaboration; research and information fluency; critical thinking, problem solving, and decision making; digital citizenship; and technology operations and concepts strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in Web design, in addition to the content described in Technology Applications Standards I–V.
- Standard XIV. The game/application development teacher has the knowledge and skills needed to teach the creativity and innovation; communication and collaboration; research and information fluency; critical thinking, problem solving, and decision making; digital citizenship; and technology operations and concepts strands of the Technology Applications Texas Essential

UNT'S STANDARD SYLLABUS STATEMENTS

Academic Integrity Standards and Consequences. According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University.

ADA Accommodation Statement. UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one's specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the ODA website at disability.unt.edu. (UNT Policy 16.001)

Course Safety Procedures (for Laboratory Courses). Students enrolled in [insert class name] are required to use proper safety procedures and guidelines as outlined in UNT Policy 06.038 Safety in Instructional Activities. While working in laboratory sessions, students are expected and required to identify and use proper safety guidelines in all activities requiring lifting, climbing, walking on slippery surfaces, using equipment and tools, handling chemical solutions and hot and cold products. Students should be aware that the UNT is not liable for injuries incurred while students are participating in class activities. All students are encouraged to secure adequate insurance coverage in the event of accidental injury. Students who do not have insurance coverage should consider obtaining Student Health Insurance. Brochures for student insurance are available in the UNT Student Health and Wellness Center. Students who are injured during class activities may seek medical attention at the Student Health and Wellness Center at rates that are reduced compared to other medical facilities. If students have an

insurance plan other than Student Health Insurance at UNT, they should be sure that the plan covers treatment at this facility. If students choose not to go to the UNT Student Health and Wellness Center, they may be transported to an emergency room at a local hospital. Students are responsible for expenses incurred there.

Emergency Notification & Procedures. UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Blackboard for contingency plans for covering course.

Foliotek ePortfolio (where applicable). Foliotek is a software data management system (DMS) used in the assessment of your knowledge, skills, and dispositions relevant to program standards and objectives. You will be required to use your Foliotek account for the duration of your enrollment in the College of Education in order to upload required applications, course assignments, and other electronic evidence/evaluations as required. This course may require assignment(s) to be uploaded and graded in Foliotek. The College of Education will track your progress in your program through this data to verify that you have successfully met the competencies required in your program of study. All students must register in the program portfolio that aligns with their degree plan. Registration codes and tutorials can be found on this site: https://coe.unt.edu/educator-preparation-office/foliotek

Student Evaluation Administration Dates. Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The survey will be made available during weeks 13, 14 and 15 of the long semesters to provide students with an opportunity to evaluate how this course is taught. Students will receive an email from "UNT SPOT Course Evaluations via *IASystem* Notification" (no-reply@iasystem.org) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey, they will receive a confirmation email that the survey has been submitted. For additional information, please visit the SPOT website at www.spot.unt.edu or email spot@unt.edu.

Sexual Assault Prevention. UNT is committed to providing a safe learning environment free of all forms of sexual misconduct. Federal laws and UNT policies prohibit discrimination on the basis of sex as well as sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking, and/or sexual assault, there are campus resources available to provide support and assistance. The Survivor Advocates can be reached at SurvivorAdvocate@unt.edu or by calling the Dean of Students Office at 940-565- 2648.

Acceptable Student Behavior. Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior

will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The University's expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at deanofstudents.unt.edu/conduct.

Retention of Student Records
Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Blackboard online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student's records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University's policy. See UNT Policy 10.10, Records Management and Retention for additional information.

Technical Requirements & Skills

Minimum Technology Requirements
- Canvas Technical Requirements (https://clear.unt.edu/supported-technologies/canvas/requirements)

Technical Assistance
Part of working in the online environment involves dealing with the inconveniences and frustration that can arise when technology breaks down or does not perform as expected. Here at UNT, we have a Student Help Desk that you can contact for help with Canvas or other technology issues.

UIT Help Desk: UIT Student Help Desk site (http://www.unt.edu/helpdesk/index.htm)
Email: helpdesk@unt.edu
Phone: 940-565-2324
In Person: Sage Hall, Room 130
Walk-In Availability: 8 am-9 pm
Telephone Availability:
- Sunday: noon-midnight
- Monday-Thursday: 8 am-midnight
- Friday: 8am-8pm
- Saturday: 9am-5pm
Laptop Checkout: 8am-7pm

For additional support, visit Canvas Technical Help (https://community.canvaslms.com/docs/DOC-10554-4212710328)

Student Support Services

UNT provides mental health resources to students to help ensure there are numerous outlets to turn to that wholeheartedly care for and are there for students in need, regardless of the nature of an issue or its severity. Listed below are several resources on campus that can support your academic success and mental well-being:

- Student Health and Wellness Center (https://studentaffairs.unt.edu/student-health-and-wellness-center)
- Counseling and Testing Services (https://studentaffairs.unt.edu/counseling-and-testing-services)
- UNT Care Team (https://studentaffairs.unt.edu/care)
- UNT Psychiatric Services (https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry)
- Individual Counseling (https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling)

Access to Information - Eagle Connect

Students access point for business and academic services at UNT is located at: my.unt.edu. All official communication from the University will be delivered to a student's Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward email Eagle Connect (https://it.unt.edu/eagleconnect).

Use of Student Work

A student owns the copyright for all work (e.g. software, photographs, reports, presentations, and email postings) he or she creates within a class and the University is not entitled to use any student work without the student's permission unless all of the following criteria are met:

- The work is used only once.
- The work is not used in its entirety.
- Use of the work does not affect any potential profits from the work.
- The student is not identified.
- The work is identified as student work.

If the use of the work does not meet all of the above criteria, then the University office or department using the work must obtain the student's written permission.

Other student support services offered by UNT include

- Registrar (https://registrar.unt.edu/registration)
- Financial Aid (https://financialaid.unt.edu/)
- Student Legal Services (https://studentaffairs.unt.edu/student-legal-services)
- Career Center (https://studentaffairs.unt.edu/career-center)
- Multicultural Center (https://edo.unt.edu/multicultural-center)

- Counseling and Testing Services (https://studentaffairs.unt.edu/counseling-and-testing-services)
- Pride Alliance (https://edo.unt.edu/pridealliance)
- UNT Food Pantry (https://deanofstudents.unt.edu/resources/food-pantry)

Academic Support Services
- Academic Resource Center (https://clear.unt.edu/canvas/student-resources)
- Academic Success Center (https://success.unt.edu/asc)
- UNT Libraries (https://library.unt.edu/)
- Writing Lab (http://writingcenter.unt.edu/)
- MathLab (https://math.unt.edu/mathlab)

Course Evaluation

Student Perceptions of Teaching (SPOT) is the student evaluation system for UNT and allows students the ability to confidentially provide constructive feedback to their instructor and department to improve the quality of student experiences in the course.

WELCOME TO THE CLASS!

DR. CARDEN