EDEE 3400	
STEAM Education: Commitments to Equity, Diversity, and Inclusion	
Instructor Colleen M. Eddy, EdD.	**Pronouns** Dr. Eddy; she/her/hers
Office location Matthews Hall 204G	**Office hours** **Wednesday, 1-4 pm Virtual Office Hours;**
Contact info Colleen.Eddy@unt.edu; please allow 24 hours for email responses during workdays. Responses will be sent between 8 am-5 pm during weekdays.	**Class Meetings** **Matthews Hall 102 Tuesday 5:30 pm – 8:20 pm**

CATALOG DESCRIPTION

The course will highlight that with equitable learning opportunities, students from diverse backgrounds and from traditionally underserved populations in STEAM education can engage in practices and constructing meaning in both formal learning and informal settings.

PREREQUISITES

Corequisite: EDEE 1010

COURSE GOALS

1. Student will understand the intersection of the sociopolitical, gender and racial/ethnic inequality in educational experiences and student achievement in STEAM education.
2. Students will understand the importance of identity development, experiences, activism and participation as key constructs for STEAM disciplines in K-12 classrooms.
3. Students will understand and distinguish between socially just pedagogy, which provides students with access to equitable opportunities, and social justice pedagogy, which couples access to learning opportunities with opportunities to question, challenge, and reconstruct knowledge, in STEAM education.

REQUIRED TEXTBOOKS

Bush, S. B., & Cook, K. L. (2019). *Step into STEAM, grades K-5: Your standards-based action plan for deepening mathematics and science learning*. Corwin Press.

Muhammad, G., Martinez, L., Baylis, L., Aguilar, E., & Eakins, S. L. (2023). *Unearthing joy: A guide to culturally and historically responsive curriculum and instruction*. Scholastic Inc.

Electronic Resources:

[Library in Teacher Education & Administration](#)
National Council of Teachers of Mathematics: www.nctm.org
Association of Science Teacher Education: https://theaste.org/
American Society for Engineering Education: https://www.asee.org/
International Society for Technology in Education:
    https://beta.iste.org/?_ga=2.87952976.970310649.1692726904-1961976853.1692726904

TEKS: https://tea.texas.gov/about-tea/laws-and-rules/texas-administrative-code/texas-administrative-code-title-19-part-2
Common Core Math Standards: http://www.corestandards.org/Math/

Course Canvas Page: https://unt.instructure.com

<u>**Educator Standards this Course Addresses**</u>:
TEA Educator Standards
English as a Second Language
ELPS
Technology Applications Standards
Texas Prekindergarten Guidelines
TEA Engineering Standards

COURSE ASSIGNMENTS

Weekly Participation:
To be effectively engaged in this class, the teacher candidate will:
  ➢ *Be prepared by reading and reflecting on assigned material each week.*
  ➢ *Show involvement in class through participation in class discussions.*
  ➢ *Lead a reading discussion at least once during the semester*
  ➢ *Demonstrate purposeful engagement with activities during class time.*

Every week you will be evaluated on your participation and engagement with our class activities and discussion of course readings. Here is a brief description of the major assignments in this course. Full descriptions can be accessed on our class Canvas page.

MAJOR ASSIGNMENTS
Identity Development as STEAM Activist: Teachers/Students You will write an essay that profiles the characteristics of minoritized teachers/students who serve as activists for integrating STEAM teaching and learning in underserved populations in K-12 classrooms.

Equity Project

This assignment is designed to develop the teacher candidate's ability to identify a STEAM concept that is from a standard for elementary (EC-6) students, determine a plan to address the conceptual using equity teaching teaching elements, implement the plan (micro-teach in class), reflect on the implementation and revise based on feedback from peers. By the conclusion of the project, the teacher candidate will be able to demonstrate proficiency with constructing a lesson based on the iterations of the lesson.

The teacher candidate must identify a target two of the STEAM components to address in two activities that meet the needs of all students. The five parts of the project are:
1) Proposal
2) Cycle for Activity Plan #1
3) Cycle for Activity Plan #2
4) Draft of Lesson Plan using one of the approved lesson plans as discussed in class with Equity Elements
5) Complete Lesson
6) Micro-teach and
7) Reflection

See the class web page for specific details, due dates and rubric.

Diversity Report

This is an opportunity for the teacher candidate to become an "expert" with respect to a particular diversity, to learn about research materials to extend your thinking of the diversity of students that will be in your classroom, and to lead others in expanding their own thinking. The report will be graded in three parts:
1) Two articles will be selected that relate to a particular diversity concept as it relates to STEAM, and an abstract will be submitted to accompany each article;
2) Presentation to class will include conducting a professional development workshop that relates to the diversity concept researched.
3) Participation in all of the workshops is expected.

See the class web page for specific details, due dates and rubric.

Final Reflection

For this assignment you will reflect on the development of your understanding of diversity, equity, and inclusion as it relates to STEAM education and your role as an educator over the course of the semester.

STUDENT EVALUATION

Attendance*/Engagement	10%
Paper-Identity Development as STEAM Activist: Teachers/Students	20%
Equity Project	35%
Diversity Report	20%
Final Reflection	15%
Total	100%

*details can be found under "Course Policies"

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

Assignment Policies: All grades/points for assignments are final. If you have any questions about grades/points earned for assignments, make an appointment to see me during office hours or send me an email. I will not discuss grades/points during class time.

All deadlines are final but you may submit within a 24 hour window of the deadline twice without asking. All assignments are due on Canvas by 11:59pm on the due date (e.g., an assignment due on September 5 is due by 11:59pm on September 5).

All assignments must be submitted in the designated area on our class Canvas page. All written items should include a professional standard of spelling, grammar and punctuation. Cohesion of thought, clarity of expression, depth of reading, analysis of issues and relevance of discussion will need to be evident. Standard requirements for each assignment are 12-point font, double-spacing, appropriate APA referencing style, use of headings and subtitles if necessary and reference lists.

When submitting assignments to Canvas, please be sure to upload word documents unless specifically instructed otherwise. Be sure to name your files using the following convention: *AssignmentName_LastName.FirstName (e.g., MathAutobiography_BrownTabitha for the Math Autobiography*). **My general policy is that late work will not be accepted** but you may submit within a 24 hour window of the deadline twice without asking. In the event that you are having continued difficulty meeting assignment deadlines, you should let me know as soon as possible so that we can discuss your options.

The following rubric will be used across all assignments for this course unless otherwise specified.

Module Assignment Grading Guide: Unless grading criteria are specified for the assignment	
A score≥90% Excellent	*Exceeds or meets ALL of the following:* Submission is completed thoughtfully and with depth. It shows a commitment to learning and to the content of this course. It addresses the assignment requirements but also appears to be personally meaningful and/or relevant. Language/communication is professional and appropriate to the audience. Connections are made to other components of the course (e.g., readings, discussions, assignments).
B 80%≤score<90% Good	*Meets most or many of the following:* Submission addresses the assignment requirements. Language/communication is professional and appropriate to the audience. Connections are made to other components of the course (e.g., readings, discussions, assignments).

C 70%≤score<80% Developing	*Meets some of the following:* Submission addresses the assignment requirements. Language/communication is professional and appropriate to the audience. Connections are made to other components of the course (e.g., readings, discussions, assignments).
<C <70% Unsatisfactory	*Meets very few or none of the following:* Submission addresses the assignment requirements. Language/communication is professional and appropriate to the audience. Connections are made to other components of the course (e.g., readings, discussions, assignments). .

COURSE POLICIES

Canvas: Our course Canvas page is the hub where all things related to our course are located. All assignments should also be uploaded there. ***Please do not email assignments to me***. Email announcements will also be sent from Canvas to your UNT email address so be sure to check your email regularly.

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. University policy 06.039 will be followed for attendance problems. If necessary, you may miss one class with a valid excuse (see university policy for excused absences) and not face penalties related to your grade (thus you are encouraged to save this absence for illness or emergencies that may arise). You must let me know as soon as possible if you will be missing class. It is your responsibility to obtain all notes and handouts missed during your absence. All assignments are due on dates indicated on the syllabus regardless of your absences. A second absence will result in a loss of points from the total grade (see table below). In the event that you miss **four or more classes**, you will receive a failing grade unless agreed upon circumstances between you and the university allow it. Students who miss more than one hour of class will be considered absent from that class meeting. Chronic tardiness or early departure (arriving more than 15 minutes late or leaving more than 15 minutes early) will result in the lowering of a final grade at my discretion. Please note: it is your responsibility to drop this course, if necessary.

# of Absences	Total participation points for the class *(out of 10 points)*
0 – 1	10
2	7
3	3
4 or more	You will automatically receive an F for your final grade

Course Materials for Class Sessions: It is recommended that you bring a laptop, tablet, and/or notebook to class each session.

Plagiarism and Artificial Intelligence

Generative Al programs often produce text that is plagiarized: it takes words and ideas from sources without attribution. Your credibility as a writer and student relies on both generating your own ideas in your own words and giving attribution (credit) to sources. However, most of the assignments in this class require reflection and original ideas (e.g. lesson plans). See **Academic Integrity Standards and Consequences** (p. 14) regarding UNT policy on plagiarism.

Educator Standards Addressed in this Course

The UNT Educator Preparation Program curriculum includes alignment to standards identified by the Texas State Board of Educator Certification (SBEC) for beginning educators. These standards are addressed throughout your preparation and assessed through the TExES Certification exams required for your teaching certificate. Additionally, the Commissioner of TEA has adopted these rules pertaining to Texas teaching standards:

Texas Teaching Standards:

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

Standard 1--Instructional Planning and Delivery. Standard 1Ai,ii,iv; 1Bi,ii (Lesson design)

Standard 2--Knowledge of Students and Student Learning.

Standard 3--Content Knowledge and Expertise.

Standard 4--Learning Environment.

Standard 5--Data-Driven Practice.

Standard 6--Professional Practices and Responsibilities.

Pedagogy and Professional Responsibilities Standards (EC-Grade 12)

Domain I. Designing Instruction and Assessment to Promote Student Learning

Competency 001: The teacher understands human developmental processes and applies this knowledge to plan instruction and ongoing assessment that motivate students and are responsive to their developmental characteristics and needs. (I.001.A-C, I.001.F, I.001.K, I.001L, I.001P)

Competency 002: The teacher understands student diversity and knows how to plan learning experiences and design assessments that are responsive to differences among students and that promote all students' learning. (I.002.A-F)

Competency 003—The teacher understands procedures for designing effective and coherent instruction and assessment based on appropriate learning goals and objectives. (I.003.A, I.003.E)

Competency 004—The teacher understands learning processes and factors that impact student learning and demonstrates this knowledge by planning effective, engaging instruction and appropriate assessments. (I.004.E, I.004.F, I.004J)

Domain II. Creating a Positive, Productive Classroom Environment

Competency 005: The teacher knows how to establish a classroom climate that fosters learning, equity and excellence and USES this knowledge to create a physical and emotional environment that is safe and productive. (II.005.A, B, II.005.E, II.005.G)

Domain III. Implementing Effective, Responsive Instruction and Assessment

Competency 007: The teacher understands and applies principles and strategies for communicating effectively in varied teaching and learning contexts. (III.007.A, B)

Competency 008: The teacher PROVIDES appropriate instruction that actively ENGAGES students in the learning process. (III.008.C)

Competency 009: The teacher INCORPORATES the effective use of technology to plan, organize, deliver, and evaluate instruction. (III.009.E, F)

Competency 010: The teacher monitors student performance and achievement; PROVIDES students with timely, high-quality feedback; and RESPONDS flexibly to promote learning for all students. (III.010.C)

Domain IV. Fulfilling Professional Roles and Responsibilities

Competency 011: The teacher understands the importance of family involvement in children's education and knows how to interact and communicate effectively with families. (11B, 11D, 11F)

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.

UNT TEACHER EDUCATION PROGRAM
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, knowledges, 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 imagine** schools as spaces where teachers are encouraged and given space to be different in what

			we are and who we are becoming.	they do with young people and their communities.
Inquiry	**We are** intellectuals with a deep understanding of academic content, curriculum development, and flexible pedagogies.	**We value** young people's knowledge, creativity, curiosity, aesthetics, imagination, and embodied ways of being as essential, educative and liberating	**We practice** curriculum as critical inquiry and research where children and youth are positioned as capable, knowledgeable and social agents for change.	**We imagine** a curriculum in schools that is shaped by societal goals and influenced daily by 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 a 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.

Department Syllabus Statements

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.

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.

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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.

UNT's Course Policies

Attendance
Students are expected to attend class meetings regularly and to abide by the attendance policy established for the course. It is important that you communicate with the professor and the instructional team prior to being absent, so you, the professor, and the instructional team can discuss and mitigate the impact of the absence on your attainment of course learning goals. Please inform the professor and instructional team if you are unable to attend class meetings because you are ill, in mindfulness of the health and safety of everyone in our community.

This course syllabus is intended to be a guide and may be amended at any time by the instructor.