

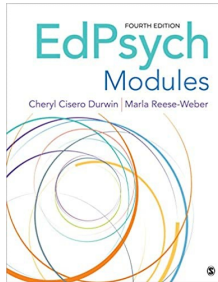
**EDUT 3370.001**  
**KNOWING AND LEARNING IN MATHEMATICS AND SCIENCE**  
**Fall 2023**

<b>Section:</b>	3370.001	<b>Instructor:</b>	Brandon L. Bretl, PhD
<b>Credits:</b>	3	<b>Email:</b>	bbretl@uttyler.edu
<b>Dates:</b>	8/21/23-12/9/23	<b>Phone:</b>	903-566-7390
<b>Days:</b>	TuTh	<b>Office:</b>	BPE 246
<b>Times:</b>	2:00 – 3:30 pm	<b>Office Hrs:</b>	TuTh 11:00 am – 1:00 pm (or upon request)
<b>Location:</b>	HPR 262		

**Course Description**

What does it mean to *know*? How does learning change what we know? And how can educators use answers to these questions to optimize student outcomes in math and science? This course focuses on theories of knowing and learning in mathematics and science with special considerations for educators. Ideas related to general intelligence, understanding, human development, and the more specific content, evolution, and use of scientific ideas are investigated and applied. The course also looks at current tensions and debates in mathematics and science instruction with an emphasis on perspectives from educational psychology and human development.

**Required Textbook**



Durwin, C. C., & Reese-Weber, M. (2018). *EdPsych Modules* (4th Edition). Sage Publishing  
 ISBN-13: 978-1544373553

Available from the UTT bookstore or online.

***Additional Resources Provided by Instructor through Canvas:***

- *How People Learn II: Learners, Contexts, and Cultures*. <https://doi.org/10.17226/24783>.
- Woolfolk, A. (2016), *Educational Psychology* (14th ed.). New York, NY: Pearson

**Student Learning Outcomes**

Objective	Texas Educator Standard	InTASC Standard
Construct models of knowing and learning to guide classroom practice.	1.2, 2.1, 2.2,2.3, 4.1	1
Apply understanding of developmental perspective on knowing and learning in classroom practices.	1.3, 2.1, 2.2, 2.3, 4.1	2
Apply foundational knowledge of testing, measurement, and classroom assessment to classroom practice.	1.1, 1.2, 1.3, 5.1, 5.3, 5.4	6
Express informed opinionson current issues and tensions in education, especially as they relate tomathematic science and instruction.	3.2, 3.3, 6.1, 6.2, 6.3, 6.4	9, 10

**Course Policies and Expectations**Civility

I expect everyone to approach others in class with a sincere intention to treat one another fairly and respectfully. We are all here to learn. I will give you that chance, and I expect you give me and your classmates that chance as well. This includes treating everyone with respect and kindness. If at any time during the semester you feel uncomfortable, please let me know. I can either address the issue or refer the issue to the appropriate resources on campus. Expressions or actions that disparage a person's or group's race, ethnicity, gender, gender identity, religion, sexual orientation, marital status, parental status, age, or disability are contrary to the mission of the course, department, and university and will not be tolerated.

Course Environment & Attendance

This course is face-to-face with assignments submitted and additional resources available through Canvas. For issues with Canvas, please contact [itsupport@patriots.uttyler.edu](mailto:itsupport@patriots.uttyler.edu). Attendance at lectures is mandatory for this course. Unexcused absences from class decrease your participation grade by ten points per absence.

Written Assignments

All written assignments should be typed (double-spaced, Times New Roman, 12-point font) and submitted by midnight Central Standard Time on the due date. All written assignments should be submitted through the assignment link that I will provide. Please name written assignments using

the following convention: last name, first initial, assignment title (ex. Last\_F\_Assignmenttitle). Late assignments will not be accepted and will receive a score of 0. Assignments completed for other courses may NOT be turned in for this course and will be considered academic dishonesty.

*For general guidance about writing in my class, see this scene from the film "A River Runs Through It" <https://www.youtube.com/watch?v=gA-sEfXOaEQ>*

### Contacting Dr. Bretl

Email is the best way to reach me. I make every effort to respond to emails within 24 hrs.

### **Student Assignments & Projects**

The course is designed to be delivered in a "module format." Course materials will be organized into weekly modules. Each module will usually consist of readings, quizzes, classroom activities/discussion prompts, written assignments, and other activities. Each week will follow a relatively consistent pattern.

### Readings

Readings will consist of chapters from the textbook and supplemental readings from research papers, books, and other textbooks provided on Canvas. It will be important that you complete assigned readings on time so you are prepared to participate in lectures and discussions. I also often provide enrichment materials that are optional but will provide a more in-depth or challenging perspective on a topic for those students who want to dig deeper into an area of interest.

### Lectures

Be sure to come to lectures prepared to participate. Classes are an hour and twenty minutes and get very boring for me and everyone else when I'm the only one talking.

### Quizzes

There will be several short quizzes in the semester (roughly one per chapter). These will be delivered online and will serve to provide a check of your understanding. The quizzes will also provide you with an idea of the types of questions you may see in the tests). Late quizzes will not be accepted and will receive a score of 0.

### Essays

You will be required to write three short essays (less than 2 pages) on prompts from the class. Additional information will be provided on these assignments in the course.

### Self-Reflections

Research shows that metacognition (the ability to reflect on study success and make changes) is critical for success in college. As such, I will be asking you to complete several low-stakes reflections designed to increase metacognitive ability. I will provide information about these assignments later in the semester. Late self-reflection assignments will not be accepted and will receive a score of 0.

### Class Participation

You are expected to participate in class in a meaningful way. You will receive points for participation at the end of the semester. If I notice you are not participating, I will reach out to let you know you are at risk of losing points and will help you with some strategies to help you become more comfortable speaking out in class.

### Research Groups

We will split into “research groups” based on our interests and will complete some group assignments based on these groups. You will also be expected to support one another and answer general questions for one another to support success in the course.

### Research Pool Requirement

Students enrolled in specified SOE courses must fulfill a research pool requirement each semester. The research requirement for these courses can be satisfied in one of two ways. First, students can fulfill the research pool requirement by volunteering to participate in approved research studies offered by the School of Education. Alternatively, students can satisfy the research pool requirement by completing alternative assignments that are equal in time and effort to the research opportunities.

### Clinical Interview

Across the semester, students are expected to satisfactorily complete one Clinical Interview with an expert and a novice on a specific topic. The clinical interview is an extensive process of formally interviewing subjects engaged in some type of problem-solving activity (e.g., a pre-med student and a surgeon with twenty years of experience). You will record the interview, transcribe, and analyze the problem-solving activity. The clinical interview should be typed and submitted by midnight Central Standard Time on the due date. Clinical interviews turned in after the deadline will receive a score of 0.

### Due Dates & Points

Due dates will be provided on Canvas for all assignments.

Grade Item	Total Points
Quizzes	5 points each X 10 quizzes = 50 total
Essays	30 points each x 3 = 90 total
Classroom Participation	50 points
Research Group Planning	10 Points
Self-reflection activities	10 points each x 3 reflections = 30 points total
Research Pool Requirement	50 points
Clinical Interview	125 points

Course Total	Approximately 405 points
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Please note: The number, content focus, and point value of all assessments and assignments is an approximation and may change.

### **Letter Grades**

A: 90.00% of points or above

B: 80.00% -89.999% of points

C: 70.00% - 79.999% of points

D: 60.00% -69.999% of points F: 59.999% of points or below

### **Course Topics Outline**

Week	Topics	Notes
1	Introductions	
2	Behavioral Perspectives	
3	Sensory & Working Memory	
4	Cognitive Load, Long-term Memory	
5	Social Cognitive Theories	
6	Self-regulation, emotion	
7	Metacognition, expert knowledge	
8	Conceptual change, constructivism	
9	Neural Development	
10	Piaget	
11	Vygotsky	
12	Maslow, goal achievement theories	
13	Attribution theory, expectancy	
14	Thanksgiving Holiday	
15	Misconceptions	
16	Final Exams	

Note: These topics and timeline are subject to change.

### **UT Tyler Resources for Students**

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

**Assessment and Standards Matrix**

Learning Outcomes	Activities	Assessment	Standards
Understand, compare, critique, and apply key theories of learning and development	Evaluate sample students Small Group Discussions Role Plays	Quizzes Essays Case Study Project	<b>TES:</b> 1Ai-iii; 1Bi-ii; 1Cii-iii; 1Di; 1Fi-iii; 2Bi-iii; 2Ci-ii; 3Ai-iii; 3Bi- iii; 3Ci; 4Ai-ii; 4Bi-ii; 4Cii-iv; 4Dii-iv; 5Ai-ii; 5Bi-iii; 5Ci-ii; 6Ai-iii;6Bi-ii; 6Dii-iii <b>ISTE:</b> 1b, 1c <b>INTASC:</b> 1, 2, 3, 4, 5, 8, 9, 10 <b>PPR:</b> EC-12 I, II, III
Understand, synthesize, and apply key constructs in cognition and motivation	Evaluate Sample Students Role Plays Small group discussions	Quizzes Essays Case Study Project	<b>TES:</b> 1Ai-iii; 1Bi-ii; 1Cii-iii; 1Di; 1Fi-iii; 2Bi-iii; 2Ci-ii; 3Ai-iii; 3Bi- iii; 3Ci; 4Ai-iii; 4Ci-iii; 4Dii-iv; 5Ai-ii; 5Bi-iii; 5Ci-ii; 6Ai-iii;6Bi-ii; 6Dii <b>ISTE:</b> 1b, 1c, 2c, 3b <b>INTASC:</b> 1, 2, 4, 7, 8 <b>PPR:</b> EC-12 I, II, III
Identify, understand, and use individual difference and contextual factors to promote student learning.	Role Plays Classroom Activity Development Activities Evaluate Sample Students	Quizzes Essays Case Study Project	<b>TES:</b> 2Bi-iii; 2Ci-ii; 3Ai-iii; 3Bi- iii; 3Ci; 4Ai-ii; 4Bi-ii; 4Cii-iv; 4Dii-iv; 5Ai-ii; 5Bi-iii; 5Ci-ii; 5Di-ii; 6Ai-iii;6Bi-ii;6Dii-iii <b>STE:</b> 1a, 1b, 1c, 1d, 2a, 2b, 3b <b>INTASC:</b> 3, 4, 5, 6, 7 <b>PPR:</b> EC-12 III, IV
Analyze and develop classroom scenarios that apply principles of educational psychology to promote student learning	Role Plays Classroom Discussions Evaluate Sample Students	Quizzes Essays Case Study Project	<b>TES:</b> 1Ai-iii; 1Bi-ii; 1Cii-iii; 1Di; 1Fi-iii; 2Bi-iii; 2Ci-ii; 3Ai-iii; 3Bi- iii; 3Ci; 4Ai-ii; 4Bi-ii; 4Cii-iv; 4Dii-iv; 5Ai-ii; 5Bi-iii; 5Ci-ii; 6Ai-iii;6Bi-ii; 6Dii-iii <b>ISTE:</b> 1b, 1c <b>INTASC:</b> 1, 2, 3, 4, 5, 8, 9, 10 <b>PPR:</b> EC-12 I, II, III

**UNIVERSITY POLICIES****UT Tyler Honor Code**

Every member of the UT Tyler community joins together in saying: I embrace honor and integrity. Therefore, I choose not to lie, cheat, or steal, nor to accept the actions of those who do.

**Students Rights and Responsibilities**

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/rightsresponsibilities.php>

**Campus Carry**

We respect the right and privacy of students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>

### **Tobacco-Free University**

All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors. Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products. There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs please visit <http://www.uttyler.edu/tobacco-free>

### **Grade Replacement/Forgiveness and Census Date Policies**

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (Stewart Hall 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar.

Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions of which students need to be aware. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date) Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment  
Completing the process for tuition exemptions or waivers through Financial Aid

### **State-Mandated Course Drop Policy**

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule,

a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date).

Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

### **Accessibility Services**

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Tyler at Texas offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including non-visible a diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler> and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with an Accessibility Case Manager. For more information, including filling out an application for services, please visit the SAR webpage at <http://www.uttyler.edu/disabilityservices>, the SAR office located in the University Center, # 3150 or call 903.566.7079.

### **Student Absence due to Religious Observance**

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

### **Student Absence for University-Sponsored Events and Activities**

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

### **Social Security and FERPA Statement**

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

### **Emergency Exits and Evacuation**

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

### **Student Standards of Academic Conduct**



Disciplinary proceedings may be initiated against any student who engages in scholastic dishonesty, including, but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

(i) “Cheating” includes, but is not limited to:

- copying from another student’s test paper;
- using, during a test, materials not authorized by the person giving the test;
- failure to comply with instructions given by the person administering the test;
- possession during a test of materials which are not authorized by the person giving the test, such as class notes or specifically designed “crib notes”. The presence of textbooks constitutes a violation if they have been specifically prohibited by the person administering the test;
- using, buying, stealing, transporting, or soliciting in whole or part the contents of an unadministered test, test key, homework solution, or computer program;
- collaborating with or seeking aid from another student during a test or other assignment without authority;
- discussing the contents of an examination with another student who will take the examination;
- divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructors has designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student;
- substituting for another person, or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment;
- paying or offering money or other valuable thing to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program or information about an unadministered test, test key, home solution or computer program;
- falsifying research data, laboratory reports, and/or other academic work offered for credit;
- taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and
- misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining an academic or financial benefit or injuring another student academically or financially.

(ii) “Plagiarism” includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another’s work and the submission of it as one’s own academic work offered for credit.

(iii) “Collusion” includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.

(iv) All written work that is submitted will be subject to review by SafeAssign™, available on Blackboard.

## 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 21st Century through productive contributions to local and global communities and toward individual and cultural equity.

### 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

#### Texas Education Standards

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.

Texas Educator Standards

Title 19: Chapter 149, Subchapter AA

Rule: 149.1001

- (a) Purpose. The standards identified in this section are performance standards to be used to inform the training, appraisal, and professional development of teachers.
- (b) Standards.
  - (1) Standard 1: Instructional Planning and Delivery. Teachers demonstrate their understanding of instructional planning and delivery by providing standards-based, data-driven, differentiated instruction that engages students, makes appropriate use of technology, and makes learning relevant for today's learners.
    - (A) Teachers design clear, well organized, sequential lessons that build on students' prior knowledge.
      - (i) Teachers develop lessons that build coherently toward objectives based on course content, curriculum scope and sequence, and expected student outcomes.
      - (ii) Teachers effectively communicate goals, expectations, and objectives to help all students reach high levels of achievement.
    - (iii) Teachers connect students' prior understanding and real-world experiences to new content and contexts, maximizing learning opportunities.
  - (B) Teachers design developmentally appropriate, standards-driven lessons that reflect evidence-based best practices.
    - (i) Teachers plan instruction that is developmentally appropriate, is standards driven, and motivates students to learn.
    - (ii) Teachers use a range of instructional strategies, appropriate to the content area, to make subject matter accessible to all students.
    - (iii) Teachers use and adapt resources, technologies, and standards-aligned instructional materials to promote student success in meeting learning goals.
  - (C) Teachers design lessons to meet the needs of diverse learners, adapting methods when appropriate.
    - (i) Teachers differentiate instruction, aligning methods and techniques to diverse student needs, including acceleration, remediation, and implementation of individual education plans.
    - (ii) Teachers plan student groupings, including pairings and individualized and small-group instruction, to facilitate student learning.
    - (iii) Teachers integrate the use of oral, written, graphic, kinesthetic, and/or tactile methods to teach key concepts.
  - (D) Teachers communicate clearly and accurately and engage students in a manner that encourages students' persistence and best efforts.
    - (i) Teachers ensure that the learning environment features a high degree of student engagement by facilitating discussion and student-centered activities as well as leading direct instruction.
    - (ii) Teachers validate each student's comments and questions, utilizing them to advance learning for all students.
    - (iii) Teachers encourage all students to overcome obstacles and remain persistent in the face of challenges, providing them with support in achieving their goals.
  - (E) Teachers promote complex, higher-order thinking, leading class discussions and activities that provide opportunities for deeper learning.
    - (i) Teachers set high expectations and create challenging learning experiences for students, encouraging them to apply disciplinary and cross-disciplinary knowledge to real-world problems.

- (ii) Teachers provide opportunities for students to engage in individual and collaborative critical thinking and problem solving.
- (iii) Teachers incorporate technology that allows students to interact with the curriculum in more significant and effective ways, helping them reach mastery.
- (F) Teachers consistently check for understanding, give immediate feedback, and make lesson adjustments as necessary.
- (i) Teachers monitor and assess student progress to ensure that their lessons meet students' needs.
- (ii) Teachers provide immediate feedback to students in order to reinforce their learning and ensure that they understand key concepts.
- (iii) Teachers adjust content delivery in response to student progress through the use of developmentally appropriate strategies that maximize student engagement.
- (2) Standard 2: Knowledge of Students and Student Learning. Teachers work to ensure high levels of learning, social-emotional development, and achievement outcomes for all students, taking into consideration each student's educational and developmental backgrounds and focusing on each student's needs.
  - (A) Teachers demonstrate the belief that all students have the potential to achieve at high levels and support all students in their pursuit of social-emotional learning and academic success.
    - (i) Teachers purposefully utilize learners' individual strengths as a basis for academic and social-emotional growth.
    - (ii) Teachers create a community of learners in an inclusive environment that views differences in learning and background as educational assets.
    - (iii) Teachers accept responsibility for the growth of all of their students, persisting in their efforts to ensure high levels of growth on the part of each learner.
  - (B) Teachers acquire, analyze, and use background information (familial, cultural, educational, linguistic, and developmental characteristics) to engage students in learning.
    - (i) Teachers connect learning, content, and expectations to students' prior knowledge, life experiences, and interests in meaningful contexts.
    - (ii) Teachers understand the unique qualities of students with exceptional needs, including disabilities and giftedness, and know how to effectively address these needs through instructional strategies and resources.
    - (iii) Teachers understand the role of language and culture in learning and know how to modify their practices to support language acquisition so that language is comprehensible and instruction is fully accessible.
  - (C) Teachers facilitate each student's learning by employing evidence-based practices and concepts related to learning and social-emotional development.
    - (i) Teachers understand how learning occurs and how learners develop, construct meaning, and acquire knowledge and skills.
    - (ii) Teachers identify readiness for learning and understand how development in one area may affect students' performance in other areas.
    - (iii) Teachers apply evidence-based strategies to address individual student learning needs and differences, adjust their instruction, and support the learning needs of each student.
- (3) Standard 3--Content Knowledge and Expertise. Teachers exhibit a comprehensive understanding of their content, discipline, and related pedagogy as demonstrated through the quality of the design and execution of lessons and their ability to match objectives and activities to relevant state standards.
  - (A) Teachers understand the major concepts, key themes, multiple perspectives, assumptions, processes of inquiry, structure, and real-world applications of their grade-level and subject-area content.
    - (i) Teachers have expertise in how their content vertically and horizontally aligns with the grade-level/subject-area continuum, leading to an integrated curriculum across grade levels and content areas.
    - (ii) Teachers identify gaps in students' knowledge of subject matter and communicate with their leaders and colleagues to ensure that these gaps are adequately addressed across grade levels and subject areas.
    - (iii) Teachers keep current with developments, new content, new approaches, and changing methods of instructional delivery within their discipline.
  - (B) Teachers design and execute quality lessons that are consistent with the concepts of their specific discipline, are aligned to state standards, and demonstrate their content expertise.
    - (i) Teachers organize curriculum to facilitate student understanding of the subject matter.
    - (ii) Teachers understand, actively anticipate, and adapt instruction to address common misunderstandings and preconceptions.
    - (iii) Teachers promote literacy and the academic language within the discipline and make discipline-specific language accessible to all learners.
  - (C) Teachers demonstrate content-specific pedagogy that meets the needs of diverse learners, utilizing engaging instructional materials to connect prior content knowledge to new learning.
    - (i) Teachers teach both the key content knowledge and the key skills of the discipline.
    - (ii) Teachers make appropriate and authentic connections across disciplines, subjects, and students' real-world experiences.
- (4) Standard 4--Learning Environment. Teachers interact with students in respectful ways at all times, maintaining a physically and emotionally safe, supportive learning environment that is characterized by efficient and effective routines, clear expectations for student behavior, and organization that maximizes student learning.
  - (A) Teachers create a mutually respectful, collaborative, and safe community of learners by using knowledge of students' development and backgrounds.
    - (i) Teachers embrace students' backgrounds and experiences as an asset in their learning environment.
    - (ii) Teachers maintain and facilitate respectful, supportive, positive, and productive interactions with and among students.
    - (iii) Teachers establish and sustain learning environments that are developmentally appropriate and respond to students' needs, strengths, and personal experiences.
  - (B) Teachers organize their classrooms in a safe and accessible manner that maximizes learning.
    - (i) Teachers arrange the physical environment to maximize student learning and to ensure that all students have access to resources.
    - (ii) Teachers create a physical classroom set-up that is flexible and accommodates the different learning needs of students.
  - (C) Teachers establish, implement, and communicate consistent routines for effective classroom management, including clear expectations for student behavior.
    - (i) Teachers implement behavior management systems to maintain an environment where all students can learn effectively.
    - (ii) Teachers maintain a strong culture of individual and group accountability for class expectations.

- (iii) Teachers cultivate student ownership in developing classroom culture and norms.
- (D) Teachers lead and maintain classrooms where students are actively engaged in learning as indicated by their level of motivation and on-task behavior.
  - (i) Teachers maintain a culture that is based on high expectations for student performance and encourages students to be self-motivated, taking responsibility for their own learning.
  - (ii) Teachers maximize instructional time, including managing transitions.
  - (iii) Teachers manage and facilitate groupings in order to maximize student collaboration, participation, and achievement.
  - (iv) Teachers communicate regularly, clearly, and appropriately with parents and families about student progress, providing detailed and constructive feedback and partnering with families in furthering their students' achievement goals.
- (5) Standard 5--Data-Driven Practice. Teachers use formal and informal methods to assess student growth aligned to instructional goals and course objectives and regularly review and analyze multiple sources of data to measure student progress and adjust instructional strategies and content delivery as needed.
  - (A) Teachers implement both formal and informal methods of measuring student progress.
    - (i) Teachers gauge student progress and ensure student mastery of content knowledge and skills by providing assessments aligned to instructional objectives and outcomes that are accurate measures of student learning.
    - (ii) Teachers vary methods of assessing learning to accommodate students' learning needs, linguistic differences, and/or varying levels of background knowledge.
  - (B) Teachers set individual and group learning goals for students by using preliminary data and communicate these goals with students and families to ensure mutual understanding of expectations.
    - (i) Teachers develop learning plans and set academic as well as social-emotional learning goals for each student in response to previous outcomes from formal and informal assessments.
    - (ii) Teachers involve all students in self-assessment, goal setting, and monitoring progress.
    - (iii) Teachers communicate with students and families regularly about the importance of collecting data and monitoring progress of student outcomes, sharing timely and comprehensible feedback so they understand students' goals and progress.
  - (C) Teachers regularly collect, review, and analyze data to monitor student progress.
    - (i) Teachers analyze and review data in a timely, thorough, accurate, and appropriate manner, both individually and with colleagues, to monitor student learning.
    - (ii) Teachers combine results from different measures to develop a holistic picture of students' strengths and learning needs.
  - (D) Teachers utilize the data they collect and analyze to inform their instructional strategies and adjust short- and long- term plans accordingly.
    - (i) Teachers design instruction, change strategies, and differentiate their teaching practices to improve student learning based on assessment outcomes.
    - (ii) Teachers regularly compare their curriculum scope and sequence with student data to ensure they are on track and make adjustments as needed.
- (6) Standard 6--Professional Practices and Responsibilities. Teachers consistently hold themselves to a high standard for individual development, pursue leadership opportunities, collaborate with other educational professionals, communicate regularly with stakeholders, maintain professional relationships, comply with all campus and school district policies, and conduct themselves ethically and with integrity.
  - (A) Teachers reflect on their teaching practice to improve their instructional effectiveness and engage in continuous professional learning to gain knowledge and skills and refine professional judgment.
    - (i) Teachers reflect on their own strengths and professional learning needs, using this information to develop action plans for improvement.
    - (ii) Teachers establish and strive to achieve professional goals to strengthen their instructional effectiveness and better meet students' needs.
    - (iii) Teachers engage in relevant, targeted professional learning opportunities that align with their professional growth goals and their students' academic and social-emotional needs.
  - (B) Teachers collaborate with their colleagues, are self-aware in their interpersonal interactions, and are open to constructive feedback from peers and administrators.
    - (i) Teachers seek out feedback from supervisors, coaches, and peers and take advantage of opportunities for job- embedded professional development.
    - (ii) Teachers actively participate in professional learning communities organized to improve instructional practices and student learning.
  - (C) Teachers seek out opportunities to lead students, other educators, and community members within and beyond their classrooms.
    - (i) Teachers clearly communicate the mission, vision, and goals of the school to students, colleagues, parents and families, and other community members.
    - (ii) Teachers seek to lead other adults on campus through professional learning communities, grade- or subject-level team leadership, committee membership, or other opportunities.
  - (D) Teachers model ethical and respectful behavior and demonstrate integrity in all situations.
    - (i) Teachers adhere to the educators' code of ethics in §247.2 of this title (relating to Code of Ethics and Standard Practices for Texas Educators), including following policies and procedures at their specific school placement(s).
    - (ii) Teachers communicate consistently, clearly, and respectfully with all members of the campus community, including students, parents and families, colleagues, administrators, and staff.
    - (iii) Teachers serve as advocates for their students, focusing attention on students' needs and concerns and maintaining thorough and accurate student records.

#### SCHOOL OF EDUCATION PROGRAM STANDARDS

The School of Education has adopted program standards that guide the development of teacher candidates in their understanding of the complexity of teaching. These standards are based on those developed by the Interstate New Teacher Assessment and Support Consortium (InTASC) and shared by other accredited universities in Texas and across the United States. The Standards are broad understandings and practices gained throughout the program using a constructivist model in which new learnings are assimilated and attached to prior understandings, thus, over time, building a mental structure (schema) of educational concepts.

**Standard #1: Learner Development (students in general)**

The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.

Texas Teacher Practice Standards: 1.2, 2.1, 2.2, 2.3, 4.1

**Standard #2: Learning Differences (individual students)**

The teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.

Texas Teacher Practice Standards: 1.3, 2.1, 2.2, 2.3, 4.1

**Standard #3: Learning Environments**

The teacher works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self motivation.

Texas Teacher Practice Standards: 1.3, 1.4, 1.6, 2.3, 4.1, 4.2, 4.3, 4.4

**Standard #4: Content Knowledge**

The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content.

Texas Teacher Practice Standards: 1.2, 1.5, 1.6, 3.1, 3.2, 3.3, 5.2

**Standard #5: Application of Content**

The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.

Texas Teacher Practice Standards: 1.5, 3.2, 3.3

**Standard #6: Assessment**

The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making.

Texas Teacher Practice Standards: 1.6, 5.1, 5.2, 5.3, 5.4, 6.2

**Standard #7: Planning for Instruction**

The teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.

Texas Teacher Practice Standards: 1.1, 1.2, 1.3, 5.1, 5.3, 5.4

**Standard #8: Instructional Strategies**

The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.

Texas Teacher Practice Standards: 1.4, 1.5, 1.6, 5.4

**Standard #9: Professional Learning and Ethical Practice**

The teacher engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner.

Texas Teacher Practice Standards: 3.2, 3.3, 6.1, 6.2, 6.4

**Standard #10: Leadership and Collaboration**

The teacher seeks appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

Texas Teacher Practice Standards: 6.3, 6.4

**Standard #11: Technology**

The teacher is able to create, implement, and evaluate technology to enhance teaching, student learning, and other obligations (e.g. reports, grades, tests, etc.) required of teachers.

Texas Teacher Practice Standards: 1.5

**Teacher Ethics:** The School of Education is committed to producing highly ethical educators for the K-12 students of Texas. Our program interweaves the Code of Ethics and Standard Practices for Texas Educators throughout our program.

Code of Ethics and Standard Practices for Texas Educators

Texas Administrative Code

TITLE 19 EDUCATION

PART 7 STATE BOARD FOR EDUCATOR CERTIFICATION

CHAPTER 247 EDUCATORS' CODE OF ETHICS

RULE §247.2 Purpose and Scope; Definitions

(b) Enforceable Standards.

(1) Professional Ethical Conduct, Practices and Performance.

(A) Standard 1.1. The educator shall not intentionally, knowingly, or recklessly engage in deceptive practices regarding official policies of the school district, educational institution, educator preparation program, the Texas Education Agency, or the State Board for Educator Certification (SBEC) and its certification process.

(B) Standard 1.2. The educator shall not knowingly misappropriate, divert, or use monies, personnel, property, or equipment committed to his or her charge for personal gain or advantage.

(C) Standard 1.3. The educator shall not submit fraudulent requests for reimbursement, expenses, or pay.

(D) Standard 1.4. The educator shall not use institutional or professional privileges for personal or partisan advantage.

(E) Standard 1.5. The educator shall neither accept nor offer gratuities, gifts, or favors that impair professional judgment or to obtain special advantage. This standard shall not restrict the acceptance of gifts or tokens offered and accepted openly from students, parents of students, or other persons or organizations in recognition or appreciation of service.

(F) Standard 1.6. The educator shall not falsify records, or direct or coerce others to do so.

(G) Standard 1.7. The educator shall comply with state regulations, written local school board policies, and other state and federal laws.

- (H) Standard 1.8. The educator shall apply for, accept, offer, or assign a position or a responsibility on the basis of professional qualifications.
- (I) Standard 1.9. The educator shall not make threats of violence against school district employees, school board members, students, or parents of students.
- (J) Standard 1.10. The educator shall be of good moral character and be worthy to instruct or supervise the youth of this state.
- (K) Standard 1.11. The educator shall not intentionally or knowingly misrepresent his or her employment history, criminal history, and/or disciplinary record when applying for subsequent employment.
- (L) Standard 1.12. The educator shall refrain from the illegal use or distribution of controlled substances and/or abuse of prescription drugs and toxic inhalants.
- (M) Standard 1.13. The educator shall not consume alcoholic beverages on school property or during school activities when students are present.
- (2) Ethical Conduct Toward Professional Colleagues.
- (A) Standard 2.1. The educator shall not reveal confidential health or personnel information concerning colleagues unless disclosure serves lawful professional purposes or is required by law.
- (B) Standard 2.2. The educator shall not harm others by knowingly making false statements about a colleague or the school system.
- (C) Standard 2.3. The educator shall adhere to written local school board policies and state and federal laws regarding the hiring, evaluation, and dismissal of personnel.
- (D) Standard 2.4. The educator shall not interfere with a colleague's exercise of political, professional, or citizenship rights and responsibilities.
- (E) Standard 2.5. The educator shall not discriminate against or coerce a colleague on the basis of race, color, religion, national origin, age, gender, disability, family status, or sexual orientation.
- (F) Standard 2.6. The educator shall not use coercive means or promise of special treatment in order to influence professional decisions or colleagues.
- (G) Standard 2.7. The educator shall not retaliate against any individual who has filed a complaint with the SBEC or who provides information for a disciplinary investigation or proceeding under this chapter.
- (3) Ethical Conduct Toward Students.
- (A) Standard 3.1. The educator shall not reveal confidential information concerning students unless disclosure serves lawful professional purposes or is required by law.
- (B) Standard 3.2. The educator shall not intentionally, knowingly, or recklessly treat a student or minor in a manner that adversely affects or endangers the learning, physical health, mental health, or safety of the student or minor.
- (C) Standard 3.3. The educator shall not intentionally, knowingly, or recklessly misrepresent facts regarding a student.
- (D) Standard 3.4. The educator shall not exclude a student from participation in a program, deny benefits to a student, or grant an advantage to a student on the basis of race, color, gender, disability, national origin, religion, family status, or sexual orientation.
- (E) Standard 3.5. The educator shall not intentionally, knowingly, or recklessly engage in physical mistreatment, neglect, or abuse of a student or minor.
- (F) Standard 3.6. The educator shall not solicit or engage in sexual conduct or a romantic relationship with a student or minor.
- (G) Standard 3.7. The educator shall not furnish alcohol or illegal/unauthorized drugs to any person under 21 years of age unless the educator is a parent or guardian of that child or knowingly allow any person under 21 years of age unless the educator is a parent or guardian of that child to consume alcohol or illegal/unauthorized drugs in the presence of the educator.
- (H) Standard 3.8. The educator shall maintain appropriate professional educator-student relationships and boundaries based on a reasonably prudent educator standard.
- (I) Standard 3.9. The educator shall refrain from inappropriate communication with a student or minor, including, but not limited to, electronic communication such as cell phone, text messaging, email, instant messaging, blogging, or other social network communication. Factors that may be considered in assessing whether the communication is inappropriate include, but are not limited to:
- (i) the nature, purpose, timing, and amount of the communication;
  - (ii) the subject matter of the communication;
  - (iii) whether the communication was made openly or the educator attempted to conceal the communication;
  - (iv) whether the communication could be reasonably interpreted as soliciting sexual contact or a romantic relationship;
  - (v) whether the communication was sexually explicit; and
  - (vi) whether the communication involved discussion(s) of the physical or sexual attractiveness or the sexual history, activities, preferences, or fantasies of either the educator or the student