

**EDUC 5322-115, 80673, Internship I**

**Fall, 2022**

**Texas A&M University-Central Texas**

**COURSE DATES, MODALITY, AND LOCATION**

**Date and Time:** Select Saturdays from 9:00-1:30

**Location:** Warrior Hall

This course is an IS.

**INSTRUCTOR AND CONTACT INFORMATION**

**Instructor:** J. Elizabeth Casey, Ph.D.

**Office:** Warrior Hall 322 J

**Phone:** 254-519-5491

**Email:** [j.casey@tamuct.edu](mailto:j.casey@tamuct.edu)

**Office Hours**

Monday 1:30-3:30 Office

Thursday 2:00-4:00 Office

Virtual by appointment

**Student-instructor interaction**

You can meet with me by appointment (either in-person or virtually). I will try to respond to emails within 24 hours. I will usually respond to text messages or phone calls immediately. If I am in a meeting or engaged, I will respond the same day. Whether texting or leaving a voice mail, please tell me your name (text) and which class you are taking. Please do not hesitate to text my cell number if you are stressed about an assignment or if anything is unclear. Just begin the text with your name and the class.

**Emergency Warning System for Texas A&M University-Central Texas**

**SAFEZONE.** SafeZone provides a public safety application that gives you the ability to call for help with the push of a button. It also provides Texas A&M University-Central Texas the ability to communicate emergency information quickly via push notifications, email, and text messages. All students automatically receive email and text messages via their myCT accounts.

Downloading SafeZone allows access to push notifications and enables you to connect directly for help through the app.

You can download SafeZone from the app store and use your myCT credentials to log in. If you would like more information, you can visit the [SafeZone](http://www.safezoneapp.com) website [www.safezoneapp.com].

To register SafeZone on your phone, please follow these 3 easy steps:

1. Download the SafeZone App from your phone store using the link below:
  - o [iPhone/iPad](https://apps.apple.com/app/safezone/id533054756): [https://apps.apple.com/app/safezone/id533054756]
  - o [Android Phone / Tablet](https://play.google.com/store/apps/details?id=com.criticalarc.safezoneapp)  
[https://play.google.com/store/apps/details?id=com.criticalarc.safezoneapp]
2. Launch the app and enter your myCT email address (e.g. {name}@tamuct.edu)
3. Complete your profile and accept the terms of service

For updates on COVID information, please monitor the University [website](https://www.tamuct.edu/covid19/)  
[https://www.tamuct.edu/covid19/]

## **COURSE INFORMATION**

**Catalogue Course Description:** Study methods and materials for the teaching of math and science. Emphasis will be on helping teachers become more effective in teaching math and science by developing questions, investigations, speculations, and explorations that reflect not only the content of each area of study, but the process involved in learning. Prerequisite(s): Admitted into the Educator Preparation Program.

**Course Objective:** The objective of the course is to provide teachers with information concerning the current basic concepts and skills and educational methodologies in mathematics and science content areas. Students will explore the different theories of learning and the unique developmental characteristics of PreK-5 children and apply this knowledge to the teaching of mathematics and science.

## **STUDENT LEARNING OUTCOMES:**

### **Knowledge Outcomes**

1. Examine different theories of learning and child development as they apply to teaching mathematics and science.
2. Analyze professional readings concerning mathematics and science concepts and skills, instruction, assessments, misconceptions, and/or standards.
3. The educator will understand and identify common misconceptions and error patterns related to learning science and mathematics and apply strategies to correct students' understandings.

### **Skills Outcomes**

1. Use a variety of instructional models and strategies to create lessons in mathematics and science that teach basic mathematics and science skills and concepts to PreK-5 children.
2. Demonstrate appropriate use of a selected instructional model.

## STANDARDS:

Competency Goals 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.

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.

### Recommended READING & TEXTBOOK(S)

Foster, G. (1999). *Elementary Mathematics and Science Methods: Inquiry Teaching and Learning*. Cengage. ISBN-13: 978-0534515799 ISBN-10: 0534515797

Bybee, R. W. (2011). Scientific and engineering practices in K-12 classrooms: Understanding a framework for K-12 science education. *Science and Children*, 49(4), 10.

Chiappetta, E. L., & Adams, A. (2002). Inquiry-based instruction. *The Science Teacher*, 71(2), 46-50.

Committee on Conceptual Framework for the New K-12 Science Education Standards, & National Research Council. (2012). *A framework for K-12 science education: Practices, crosscutting concepts, and core ideas*. Social Sciences. Washington, D.C.: The National Academies Press.

Cramer, K., Monson, D., Ahrendt, S., Colum, K., Wiley, B., & Wyberg, T. (2015). 5 Indicators of decimal understandings. *Teaching Children Mathematics*, 22(3), 186-195.

Erman, E. (2017). Factors contributing to students' misconceptions in learning covalent bonds. *Journal of Research in Science Teaching*, 54(4), 520–537.

<https://doi.org/10.1002/tea.21375>

Faulkner, Valerie N, & Cain, Chris. (2009). The Components of Number Sense. *Teaching*

*Exceptional Children*, 41(5), 24-30.

National Research Council. (2012). *A framework for K-12 science education: Practices, crosscutting concepts, and core ideas*. National Academies Press.

Next Generation Science Standards. (2013). Topic arrangements of the Next Generation Science Standards (NGSS).

Reston, V. A. (2000). National Council of Teachers of Mathematics (NCTM). *Principles and standards for school mathematics*, 87-95.

Richardson, K., Schwartz, C. S., & Reynolds, A. (2010). Investigating quadrilaterals as an ongoing task. *International Journal of Mathematics Teaching and Learning*, 1-21.

## **COURSE REQUIREMENTS**

**1. Scheduled Meetings (50 pts)**-meet with faculty at least twice on campus to work with math/science manipulatives

**2. Science Lesson Plans (25 pts) and video teaching demonstration (25 pts)**-for this lesson, you can use the Danielson, Madeline Hunter, or another LP of your choice.

**3. Math Lesson Plans (25 pts) and video teaching demonstration (25 pts)** -for this lesson, you can use the Danielson, Madeline Hunter, or another LP of your choice.

**Four Scholarly Papers:** To address SLO # 2, students will identify research-based strategies for the lower and upper elementary math and science classes. Students will conduct a search of the library data base (ERIC, EBSCO) and find articles that are no older than ten years. For each paper, review two articles and summarize the key components-focusing on how the strategy supports students' conceptual knowledge, academic performance, comprehension, etc.

**4. Paper 1:** Research-based strategies for the math classroom at the early elementary level (20 pts)

**5. Paper 2:** Research-based strategies for the science classroom at the early elementary level (20 pts)

**6. Paper 3:** Research-based strategies for the math classrooms at the upper elementary level (20 pts)

**7. Paper 4:** Research-based strategies for the science classroom at the upper elementary level (20 pts)

**8. Effective micro-strategies assignment** Read the two articles in module one. In thinking about the reasons students struggle in math, describe how you will develop instruction to meet the needs of a student struggling with math. What manipulatives might you use? What research-based strategies have demonstrated success in academic growth?

Assessment	Total Points	SLO
1. Four Scholarly Papers: @ 20 pts each	80	2
2. Science Lesson Plans	25	1-3
3. Science video teaching demonstration	25	1-3
4. Math Lesson Plans	25	1-3
5. Math video teaching demonstration	25	1-3
6. Scheduled Meetings	50	1-3
7. Effective micro-strategies assignment	10	3
<b>Total</b>	240 pts	

### Grading Criteria Rubric and Conversion

See assignment handouts for specific rubric and conversion details.

Grade	Percentage
A	90% – 100%
B	80% – 89%
C	70% – 79%
D	60% – 69%
F	< 60%

### Posting of Grades

All assignments will be graded, and grades posted, in a timely manner, typically within one to three days of due date. Longer assignments, such as the papers and projects, will be graded and grades posted in approximately five to seven days.

## COURSE OUTLINE AND CALENDAR

### Complete Course Calendar

**\*\*\*The instructor reserves the right to modify assignments and due dates to enhance student learning outcomes. Assignments may be altered/modified/changed, but no additional assignments will be added.**

Date	Module Topics	Assignment Due Dates
Module 1 Weeks 1-2	Topics: Assessment-formal and informal  Theorists of the week: Piaget and Vygotsky  Webex Meeting June 7 <sup>th</sup> @ 6:00 pm.	Effective micro-strategies assignment-due 8/28 @ 11:59 pm. Scholarly article 1 due 9/4 @ 11:59

Module 2 Weeks 3-4	Topics: Instructional Strategies-Jigsaw and Jigsaw II, Reciprocal Teaching  Theorists of the week: Gardner and Skinner	Scholarly article 1 due 9/11 @ 11:59 1 <sup>st</sup> Lesson plan and video due 9/18 @ 11:59  1 <sup>st</sup> Scheduled meeting TBD
Module 3 Weeks 5-6	Topics: Behavior in the classroom, planning effective lessons, and promoting a positive classroom environment. Chapters 4 & 7. Theorists of the week: Maslow and Bronfenbrenner	Scholarly article 1 due 9/25 @ 11:59  2 <sup>nd</sup> Lesson plan and video due 10/2@ 11:59  2 <sup>nd</sup> Scheduled meeting TBD
Module 4 Weeks 7-8	Topics: Motivation-students and motivation, readers' theater, Chapters 9 & 10. Theorists of the week: Vroom, Theory of the Week: Self-efficacy	Scholarly article 1 due 10/9 @ 11:59  3 <sup>rd</sup> Scheduled meeting TBD
Module 5 Week Final	Catch up on everything!	All assignments completed NLT 10/12

### Important University Dates (including add/drop/holiday etc.)

<https://www.tamuct.edu/registrar/academic-calendar.html>

### TECHNOLOGY REQUIREMENTS AND SUPPORT

You will need access to Canvas to complete modules during weeks when class will not meet. You will also need to upload assignments to Canvas as needed.

This course will use the A&M-Central Texas Instructure Canvas learning management system. Logon to A&M-Central Texas Canvas [<https://tamuct.instructure.com/>] or access Canvas through the TAMUCT Online link in myCT [<https://tamuct.onecampus.com/>]. You will log in through our Microsoft portal.

Username: Your MyCT email address. Password: Your MyCT password

### Technology Requirements

This course will use the A&M-Central Texas Instructure Canvas learning management system. **We strongly recommend the latest versions of Chrome or Firefox browsers. Canvas no longer supports any version of Internet Explorer.**

Logon to A&M-Central Texas Canvas [<https://tamuct.instructure.com/>] or access Canvas through the TAMUCT Online link in myCT [<https://tamuct.onecampus.com/>]. You will log in through our Microsoft portal.

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Username: Your MyCT email address. Password: Your MyCT password

## Canvas Support

Use the Canvas Help link, located at the bottom of the left-hand menu, for issues with Canvas. You can select “Chat with Canvas Support,” submit a support request through “Report a Problem,” or call the Canvas support line: 1-844-757-0953.

For issues related to course content and requirements, contact your instructor.

## Online Proctored Testing

A&M-Central Texas uses Proctorio for online identity verification and proctored testing. This service is provided at no direct cost to students. If the course requires identity verification or proctored testing, the technology requirements are: Any computer meeting the minimum computing requirements, plus web camera, speaker, and microphone (or headset). Proctorio also requires the Chrome web browser with their custom plug in.

## Other Technology Support

For log-in problems, students should contact Help Desk Central, 24 hours a day, 7 days a week

Email: [helpdesk@tamu.edu](mailto:helpdesk@tamu.edu)

Phone: (254) 519-5466

[Web Chat](http://hdc.tamu.edu): [<http://hdc.tamu.edu>]

*Please let the support technician know you are an A&M-Central Texas student.*

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## UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES

### Academic Accommodations

At Texas A&M University-Central Texas, we value an inclusive learning environment where every student has an equal chance to succeed and has the right to a barrier-free education. The Warrior Center for Student Success, Equity and Inclusion is responsible for ensuring that students with a disability receive equal access to the university’s programs, services and activities. If you believe you have a disability requiring reasonable accommodations, please contact the Office of Access and Inclusion, WH-212; or call (254) 501-5836. Any information you provide is private and confidential and will be treated as such.

For more information, please visit our [Access & Inclusion](#) Canvas page (log-in required) [<https://tamuct.instructure.com/courses/717>]

### Academic Integrity

Texas A&M University-Central Texas values the integrity of the academic enterprise and strives for the highest standards of academic conduct. A&M-Central Texas expects its students, faculty,

and staff to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. All academic misconduct concerns will be referred to the Office of Student Conduct. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

For more [information regarding the student conduct process](https://www.tamuct.edu/student-affairs/student-conduct.html), [https://www.tamuct.edu/student-affairs/student-conduct.html].

If you know of potential honor violations by other students, you may [submit a referral](https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=0), [https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout\_id=0].

### **Drop Policy**

If you discover that you need to drop this class, you must complete the [Drop Request](#) Dynamic Form through Warrior Web.

[https://federation.ngwebsolutions.com/sp/startSSO.ping?PartnerIdpId=https://eis-prod.ec.tamuct.edu:443/samlSso&SpSessionAuthnAdapterId=tamuctDF&TargetResource=https%3a%2f%2fdynamicforms.ngwebsolutions.com%2fSubmit%2fStart%2f53b8369e-0502-4f36-be43-f02a4202f612].

Faculty cannot drop students; this is always the responsibility of the student. The Registrar's Office will provide a deadline on the Academic Calendar for which the form must be completed. Once you submit the completed form to the Registrar's Office, you must go into Warrior Web and confirm that you are no longer enrolled. If you still show as enrolled, FOLLOW-UP with the Registrar's Office immediately. You are to attend class until the procedure is complete to avoid penalty for absence. Should you miss the drop deadline or fail to follow the procedure, you will receive an F in the course, which may affect your financial aid and/or VA educational benefits.

### **Important information for Pregnant and/or Parenting Students**

Texas A&M University-Central Texas supports students who are pregnant, experiencing pregnancy-related conditions, and/or parenting. In accordance with requirements of Title IX and related guidance from US Department of Education's Office of Civil Rights, the Dean of Student Affairs' Office can assist students who are pregnant and/or parenting in seeking accommodations related to pregnancy and/or parenting. Students should seek out assistance as early in the pregnancy as possible. For more information, please visit [Student Affairs](#) [https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html]. Students may also contact the institution's Title IX Coordinator. If you would like to read more about these [requirements and guidelines](#) online, please visit the website [http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf].

Title IX of the Education Amendments Act of 1972 prohibits discrimination on the basis of sex and gender—including pregnancy, parenting, and all related conditions. A&M-Central Texas is able to provide flexible and individualized reasonable accommodation to pregnant and parenting students. All pregnant and parenting students should contact the Associate Dean in the Division of Student Affairs at (254) 501-5909 to seek out assistance. Students may also contact the University's Title IX Coordinator.



## **Tutoring**

Tutoring is available to all A&M-Central Texas students, both virtually and in-person. Student success coaching is available online upon request.

If you have a question, are interested in becoming a tutor, or in need of success coaching contact the Warrior Center for Student Success, Equity and Inclusion at (254) 501-5836, visit the Warrior Center at 212 Warrior Hall, or by emailing [WarriorCenter@tamuct.edu](mailto:WarriorCenter@tamuct.edu).

To schedule tutoring sessions and view tutor availability, please visit [Tutor Matching Services](https://tutormatchingservice.com/TAMUCT) [https://tutormatchingservice.com/TAMUCT] or visit the Tutoring Center in 111 Warrior Hall.

Chat live with a remote tutor 24/7 for almost any subject from on your computer! Tutor.com is an online tutoring platform that enables A&M-Central Texas students to log in and receive online tutoring support at no additional cost. This tool provides tutoring in over 40 subject areas except writing support. Access Tutor.com through Canvas.

## **University Library & Archives**

The University Library & Archives provides many services in support of research across campus and at a distance. We offer over 200 electronic databases containing approximately 400,000 eBooks and 82,000 journals, in addition to the 96,000 items in our print collection, which can be mailed to students who live more than 50 miles from campus. Research guides for each subject taught at A&M-Central Texas are available through our website to help students navigate these resources. On campus, the library offers technology including cameras, laptops, microphones, webcams, and digital sound recorders.

Research assistance from a librarian is also available 24 hours a day through our online chat service, and at the reference desk when the library is open. Research sessions can be scheduled for more comprehensive assistance, and may take place virtually through WebEx, Microsoft Teams or in-person at the library. [Schedule an appointment here](https://tamuct.libcal.com/appointments/?g=6956) [https://tamuct.libcal.com/appointments/?g=6956]. Assistance may cover many topics, including how to find articles in peer-reviewed journals, how to cite resources, and how to piece together research for written assignments.

Our 27,000-square-foot facility on the A&M-Central Texas main campus includes student lounges, private study rooms, group work spaces, computer labs, family areas suitable for all ages, and many other features. Services such as interlibrary loan, TexShare, binding, and laminating are available. The library frequently offers workshops, tours, readings, and other events. For more information, please visit our [Library website](http://tamuct.libguides.com/index) [http://tamuct.libguides.com/index]

## **University Writing Center**

University Writing Center: Located in Warrior Hall 416, the University Writing Center (UWC) at Texas A&M University–Central Texas (A&M–Central Texas) is a free service open to all A&M–Central Texas students. The hours of operation are from 10:00 a.m.-5:00 p.m. Monday thru Thursday in Warrior Hall 416 (with online tutoring available every hour as well) with satellite hours available online only Monday thru Thursday from 6:00-9:00 p.m. and Saturday 12:00-3:00 p.m.

Tutors are prepared to help writers of all levels and abilities at any stage of the writing process. While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. By providing a practice audience for students' ideas and writing, our tutors highlight the ways in which they read and interpret students' texts, offering guidance and support throughout the various stages of the writing process. In addition, students may work independently in the UWC by checking out a laptop that runs the Microsoft Office suite and connects to WIFI, or by consulting our resources on writing, including all of the relevant style guides. Whether you need help brainstorming ideas, organizing an essay, proofreading, understanding proper citation practices, or just want a quiet place to work, the UWC is here to help!

Students may arrange a one-to-one session with a trained and experienced writing tutor by making an appointment via [WOnline](https://tamuct.mywconline.com/) [https://tamuct.mywconline.com/]. In addition, you can email Dr. Bruce Bowles Jr. at [bruce.bowles@tamuct.edu](mailto:bruce.bowles@tamuct.edu) if you have any questions about the UWC, need any assistance with scheduling, or would like to schedule a recurring appointment with your favorite tutor.

## **OPTIONAL POLICY STATEMENTS**

### **A Note about Sexual Violence at A&M-Central Texas**

Sexual violence is a serious safety, social justice, and public health issue. The university offers support for anyone struggling with these issues. University faculty are mandated reporters, so if someone discloses that they were sexually assaulted (or a victim of Domestic/Dating Violence or Stalking) while a student at TAMUCT, faculty members are required to inform the Title IX Office. If you want to discuss any of these issues confidentially, you can do so through Student Wellness and Counseling (254-501-5955) located on the second floor of Warrior Hall (207L).

Sexual violence can occur on our campus because predators often feel emboldened, and victims often feel silenced or shamed. It is incumbent on ALL of us to find ways to actively create environments that tell predators we don't agree with their behaviors and tell survivors we will support them. Your actions matter. Don't be a bystander; be an agent of change. For additional information on campus policy and resources visit the [Title IX webpage](https://www.tamuct.edu/compliance/titleix.html) [https://www.tamuct.edu/compliance/titleix.html].

### **Behavioral Intervention**

Texas A&M University-Central Texas cares about the safety, health, and well-being of its students, faculty, staff, and community. If you are aware of individuals for whom you have a concern, please make a referral to the Behavioral Intervention Team. Referring your concern shows you care. You can complete the [referral](https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=2) online

[https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout\_id=2].

Anonymous referrals are accepted. Please see the [Behavioral Intervention Team](https://www.tamuct.edu/bit) website for more information [https://www.tamuct.edu/bit]. If a person's behavior poses an imminent threat to you or another, contact 911 or A&M-Central Texas University Police at 254-501-5805.

*Late work will be accepted. Contact Dr. Casey if you fall behind so that arrangements can be made. Points may be deducted based on circumstances.*

#### Copyright Notice

Students should assume that all course material is copyrighted by the respective author(s). Reproduction of course material is prohibited without consent by the author and/or course instructor. Violation of copyright is against the law and Texas A&M University-Central Texas' Code of Academic Honesty. All alleged violations will be reported to the Office of Student Conduct.

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