ECE 460 – 01W 50022
Teaching STEAM in ECE
COURSE SYLLABUS: Summer II 2024

INSTRUCTOR INFORMATION

Instructor: Dr. Nicole Pearce
Office Location: Ed South 219
Office Hours: Email or Telephone or Virtual by Appointment
University Email Address: Nicole.pearce@tamuc.edu
Preferred Form of Communication**:** Email
Communication Response Time: Communication Response Time: 24 Hours or Less

COURSE INFORMATION

Required Textbook

Curriculum across the Early Childhood and Primary Years (Top Hat)

Course Description

This course emphasizes an integrated approach to early childhood curriculum development for young children. Relates early childhood pedagogy, research, and content areas of science, mathematics, engineering, technology, and art to STEAM project-based, integrated and inquiry curriculum designs.

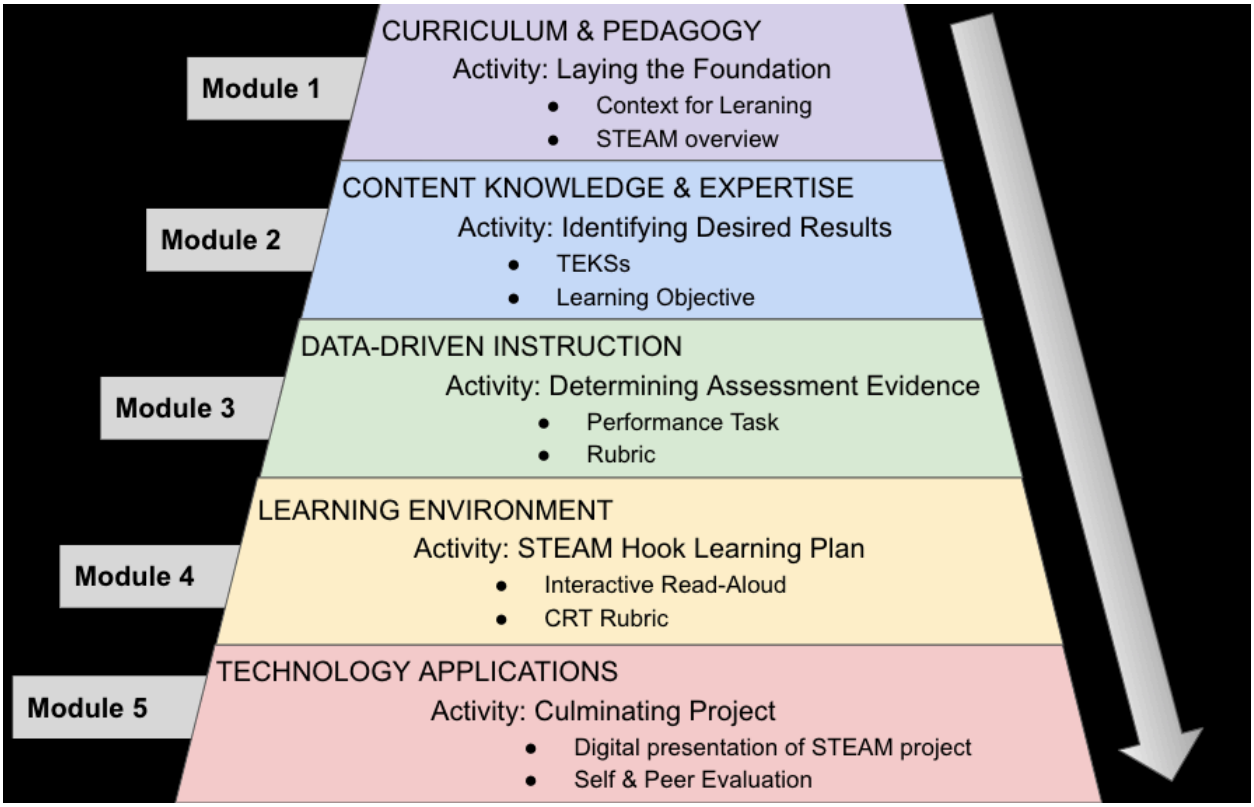
Student Learning Outcomes

Completion of this course provides the student with the knowledge to:

1. CURRICULUM & PEDAGOGY: Students will be able to apply developmentally appropriate strategies and practices to plan effective and coherent instruction that embraces students' assets.
2. CONTENT KNOWLEDGE & EXPERTISE: Students will be able to construct developmentally appropriate, specific, and relevant learning objectives that measure student mastery of performance standards.
3. DATA-DRIVEN INSTRUCTION: Students will be able to create various assessment methods and strategies that are congruent with learning objectives and guide instructional planning.

The *syllabus/schedule are subject to change.*

4. LEARNING ENVIRONMENT: Students will be able to design an instructional plan that promotes a mutually respectful and collaborative class of actively engaged learners.
5. TECHNOLOGY APPLICATIONS: Students will be able to incorporate the effective use of current technology to plan, organize, deliver, and evaluate instruction.



COURSE REQUIREMENTS

Minimal Technical Skills Needed

Students will need reliable computer and internet access for this course. Students must be able to effectively use myLeo email, myLeo Online D2L, and Microsoft Office.

Instructional Methods

This course is an online course. To be successful in this course, all content and course modules should be read and reviewed. All assignments and quizzes (both graded and not graded) must be completed. Please contact the instructor by email for any assistance.

Student Responsibilities or Tips for Success in the Course

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To be successful in this course, all content and course modules should be read and reviewed. All assignments and quizzes (both graded and not graded) should be completed. Please contact the instructor by email for any assistance.

GRADING

Final grades in this course will be based on the following scale:

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

Assessments

Assessments embedded throughout the course evaluate mastery of student learning outcomes through reflection questions embedded in each Top Hat chapter and module activities that culminate into the final project.

Culminating Project

The project assesses your knowledge of terms and the application of concepts presented in this course.

Module	Task	Points
1	Top Hat	40
	Activity	40
2	Top Hat	40
	Activity	40
3	Top Hat	40
	Activity	40
4	Top Hat	40
	Activity	40
5	Culminating Project	40
Total		360

Course Timeline with due dates is located on the last page of this syllabus.

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TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:
https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support:
https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

Zoom Video Conferencing Tool
https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom_Account.aspx?source=universalmenu

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu**.**

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

https://community.brightspace.com/support/s/contactsupport

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Interaction with Instructor Statement

This is an online course; therefore, expect most communication to be online as well. Correspondence will always be through university email (your "myLeo" mail) and announcements in myLeo online (D2L). The instructor will make every effort to respond to emails within 24 provided the correspondence follows the requirements listed below. Students are encouraged to check university email daily.

All emails from students should include:

- Course name and subject in the subject line (ex. ECE 460 – Module 1
- Salutation
- Proper email etiquette (no "text" emails – use proper grammar and punctuation)
- Student name and CWID after the body of the email

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.
http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:
https://www.britannica.com/topic/netiquette

TAMUC Attendance

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01.
http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03
Undergraduate Student Academic Dishonesty Form

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf

Graduate Student Academic Dishonesty Form

http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyFormold.pdf

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course. Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.
13.99.99.R0.03 Undergraduate Academic Dishonesty
13.99.99.R0.10 Graduate Student Academic Dishonesty

Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Velma K. Waters Library Rm 162

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Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: studentdisabilityservices@tamuc.edu
Website: Office of Student Disability Resources and Services
http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns On Campus document and/or consult your event organizer.

Web url:
http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

A&M-Commerce Supports Students' Mental Health

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit **www.tamuc.edu/counsel**

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Department or Accrediting Agency Required Content

References

Module 1	American Psychology Association. (n.d.). Education and Socioeconomic Status. Retrieved August 03, 2020, from https://www.apa.org/pi/ses/resources/publications/education Edgar, D. W. (2012). Learning theories and historical events affecting instructional design in education: Recitation literacy toward extraction literacy practices. *Sage Open*, *2*(4), 2158244012462707. Masters, G. (2018, August 27). The role of evidence in teaching and learning. Retrieved August 03, 2020, from https://www.teachermagazine.com.au/columnists/geoff-masters/the-role-of-evidence-in-teaching-and-learning
Module 2	Hoque, M.E. (2016). Three Domains of Learning: Cognitive, Affective and Three. *The Journal of EFL Education and Research*, 2(2). Minero, E. (2015, December 15). Giving Students the Opportunity to Drive Lessons. Retrieved August 03, 2020, from https://www.edutopia.org/practice/inquiry-based-learning-teacher-guided-student-driven Wiggins, G., Wiggins, G. P., & McTighe, J. (2005). *Understanding by design*. Ascd.
Module 3	Dugas, D. (2017). Group dynamics and individual roles: A differentiated approach to social-emotional learning. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, *90*(2), 41-47. “Enhancing and Practicing Executive Function Skills with Children from Infancy to Adolescence.” Center on the Developing Child at Harvard University. Retrieved from: https://developingchild.harvard.edu/resources/activities-guide-enhancing-and-practicing- executive Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. New York: Oxford University.
Module 4	Bishop, R. S. (1990). Mirrors, windows, and sliding glass doors. *Perspectives: Choosing and Using Books for the Classroom, 6*(3): ix-iv. Cooperative Children’s Book Center. (2019). Publishing statistics on children’s books about people of color and first/native nations and by people of color and first/native nations authors and illustrators. Retrieved from https://ccbc.education.wisc.edu/books/pcstats.asp#USonly DeVries, R., & Zan, B. (1994). *Moral classrooms, moral children: Creating a constructivist atmosphere in early education* (Vol. 47). Teachers College Press.

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Bibliography

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Dewey, J. (1925). *Experience and Nature.* London: Open Court.

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Edwards, C., Gandini, L., & Forman, G. (1998). *The Hundred Languages of Children.*Westport, CT: Ablex Publishing Corporation.

Edward L. Thorndike (1874–1949) - The Man and His Career, A Psychology for Educators, Education as Specific Habit Formation. (n.d.). Retrieved August 03, 2020, from https://education.stateuniversity.com/pages/2509/Thorndike-Edward-L-1874-1949.html

Erikson, E.H. (1982). *The Life Cycle Completed*. New York: W.W.Northan & Company.

Flake, L. H. (2017). A Look at the Relationship of Curriculum and Instruction and the Art and Science of Teaching. *Asian Journal of Education and Training*, *3*(2), 82-85.

Frost, J. L., Wortham, S. C., & Reifel, S. (2012). *Play and Child Development* (4th ed.). Boston: Pearson.

Heick, T. (2019, November 05). 4 Phases of Inquiry-Based Learning: A Guide For Teachers. Retrieved August 03, 2020, from https://www.teachthought.com/pedagogy/4-phases-inquiry-based-learning-guide-teachers/

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Marlowe, B. A., & Page, M. L. (2005). *Creating and Sustaining the Constructivist Classroom.* Thousand Oaks, CA: Corwin Press.

Mcleod, S. (n.d.). Skinner - Operant Conditioning. Retrieved August 03, 2020, from https://www.simplypsychology.org/operant-conditioning.html

Mcleod, S. (1970, January 01). Edward Thorndike: The Law of Effect. Retrieved August 03, 2020, from https://www.simplypsychology.org/edward-thorndike.html

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Multicultural Education: *Goals and Dimensions*. (n.d.). Retrieved August 03, 2020, from https://education.uw.edu/cme/view

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National Curriculum Standards for Social Studies: Introduction. (n.d.). Retrieved August 03, 2020, from https://www.socialstudies.org/standards/national-curriculum-standards-social-studies-introduction

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Piaget, J. (1951). *Play, dreams, and imitation in childhood*. New York: Norton.

Shaul, S., & Schwartz, M. (2014). The role of the executive functions in school readiness wartz, M. (2014). The role of the executive functions in school readiness among preschool-age children. *Reading And Writing*, *27*(4), 749-768.

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Schweinhart, L. J., & Weikart, D. P. (1998). Why curriculum matters in early childhood education. *Educational Leadership*, *55*, 57-61.

Sharapan, H. (2012). From STEM to STEAM: How early childhood educators can apply Fred Rogers' approach. *YC Young Children*, *67*(1), 36.

Seo, K. H., & Ginsburg, H. P. (2004). What is developmentally appropriate in early childhood mathematics education? Lessons from new research. *Engaging young children in mathematics: Standards for early childhood mathematics education*, 91-104.

Thomas, M. (2005). Comparing theories of child development. Belmont: Wadsworth.

Vygotsky, L.S. (1978). *Mind in Society.* Cambridge, MA: Harvard University Press.

Alignment to TEA Standards

Teacher Preparation Standards: 1.E.i-iii; **TEKS Standards:** 5 & 6; **Prekindergarten Guidelines**: X.A.1-5 **PPR Standards*:*** 1.7-21k & 1.23k, 1.6-1.19s, 1.21 & 1.29k, 1.21-1.23s, 1.25s, 1.27s; **Technology Application Standards:** 1.1-3k, 1.1-5s, 2.1-4k, 2.1-10s, 3.1-3k, 3.1-7s, 4.1-3k, 4.1-4.12s, 6.4k, 7.1-3k, 7.3-5s, 7.7s, 7.11s, 7.14s; **EC-3 Core Test Framework:** III.006.A-C; **PPR Test Framework:** I.003.A-H, III.009.A & D-G

Course SLO (Competency)	TEA Standard
Students will be able to apply developmentally appropriate strategies and practices to plan effective and coherent instruction that embraces students' assets.	**EC-3 Core Test Framework:** III.006 C **PPR Standards:** 1.16-18k, 1.16-18s, 1.19 & 1.21k, 1.19 s **PPR Test Framework:** I.003.A-H,
Students will be able to construct developmentally appropriate, specific, and relevant learning objectives that measure student mastery of performance standards.	**PPR Standards:** 1.7k, 1.6s, 1.8-1.11k, 1.7-1.11s, 1.12-15k, 1.12-15s
Students will be able to create various assessment methods and strategies that are congruent with learning objectives and guide instructional planning.	**TEKS Standards:** 5 **PPR Standards:** 1.29k, 1.25 & 1.27s

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Students will be able to design an instructional plan that promotes a mutually respectful and collaborative class of actively engaged learners.	**TEKS Standards: 6** **PPR Test Framework:** I.003.A-H **EC-3 Core Test Framework:** III.006.A-B **Teacher Preparation Standards:** 1.E.i-iii
Students will be able to incorporate the effective use of current technology to plan, organize, deliver, and evaluate instruction.	**19 TAC §228.35(b)**(2)(G) **PPR Test Framework:** III.009.A & D-F **Technology Applications:** 1.1-3k, 1.1-5s, 2.1-4k, 2.1-10s, 3.1-3k, 3.1-7s, 4.1-3k, 4.1-4.12s, 6.4k, 7.1-3k, 7.3-5s, 7.7s, 7.11s, 7.14s **Prekindergarten Guidelines:** X.A.1-5

Course Timeline

Module	SLO	Tasks
Start Here	Students will be able to understand the course format, content, and materials by exploring introductory materials.	1. Read & Explore Module Materials 2. REQUIRED Activity: Syllabus Acknowledgement 3. OPTIONAL Activity: Digital Portfolio
1	Students will be able to apply developmentally appropriate strategies and practices to plan effective and coherent instruction that embraces students' assets.	1. Top Hat CH 1: read/5 questions 2. Top Hat CH 2: read/5 questions 3. Read & Explore Module Materials 4. Activity: Laying the Foundation
2	Students will be able to construct developmentally appropriate, specific, and relevant learning objectives that measure student mastery of performance standards.	1. Top Hat CH 3: read/5 questions 2. Top Hat CH 4: read/5 questions 3. Read & Explore Module Materials 4. Activity: Identifying Desired Results
3	Students will be able to create various assessment methods and strategies that are congruent with learning objectives and guide instructional planning.	1. Top Hat CH 5: read/5 questions 2. Top Hat CH 6: read/5 questions 3. Read & Explore Module Materials 4. Activity: Determining Assessment Evidence
4	Students will be able to design an instructional plan that promotes a mutually respectful and collaborative class of actively engaged learners.	1. Top Hat CH 7: read/5 questions 2. Top Hat CH 8: read/5 questions 3. Read & Explore Module Materials 4. Activity: STEAM Hook Learning Plan
5	Students will be able to incorporate the effective use of current technology to plan, organize, deliver, and evaluate instruction.	Culminating Project 1. Digital Presentation of STEAM project 2. Self & Peer Evaluation

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