

**ECE 535: Math, Science & Social Studies Curriculum
SUMMER I 2022 ONLINE
(16 weeks packed into 4 physical weeks: June 6- July 11)**

Instructor: Amy Corp, Ed.D C&I
Office Location: Mesquite
Office Hours: by appointment
Office Phone: use virtual office
University Email Address: amy.corp@tamuc.edu

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings:

Course readings supplied in D2L learning, by email, and course website. Must have Adobe Reader.

Textbooks

MATHEMATICS: * We will focus on designing our classrooms for conceptual understanding, procedural fluency and mathematical reasoning.

Required: *Reimagining the Mathematics Classroom* ([Cathery Yeh](#), [Mark Ellis](#), [Carolee Koehn Hurtado](#)) First edition: NCTM (National Council of Teachers of Mathematics, 2017)

ISBN-10: 0873539087

ISBN-13: 978-0873539081

SCIENCE: *We will focus on inquiry based learning and integrated STEM (for ECE- utilizing Maker Spaces) mainly through videos/articles, research and discussion.

SOCIAL STUDIES: * Using source materials we will focus on pedagogy for teaching SS using the prek guidelines or TEKS for your teaching level.

Course/Catalog Description: ECE 535 - Math Sci Social Stud Curr

Hours: 3

Math, Science and Social Studies Curriculum, three semester hours. This is a study of the content, methods, and theory appropriate for extending learnings in math, science and social studies. Emphasis is placed upon formulating lessons **which extend and integrate the learning experiences** of young children. Pre- Kindergarten, Kindergarten, Grades 1-3.

Course Process

1. Active engagement and participation in D2L learning: Resources
2. Deep reading of assigned readings, in D2L learning
3. Participating in robust discussions and optional collaborative project- come prepared, post intelligently, respond
4. Observation of learners, report on findings from the field
5. Research and reading of integrating children's literature with mathematics, science, and social studies.

Student Learning Outcomes: Based on the Early Childhood Teacher Competency:

Competency 15 Interdisciplinary connections/instruction. The early childhood teacher understands interrelationships among the content areas, recognizes skills and concept that may be applied across the curriculum, and can use this knowledge to enhance children's thinking and their ability to understand the world.

Competency 16 Mathematical understanding/concepts. The early childhood teacher understands how the development of mathematical concepts promotes young children's thinking skills and knows how instructional methods involving the use of various types of thinking (e.g., exploration, discovery learning, problem solving) can enhance children's mathematical understanding.

Competency 17 Social studies concepts and principles. The early childhood teacher knows how to promote children's cognitive development and their understanding of their world through active exploration of social studies concepts and principles.

Competency 18 Science concepts and processes. The early childhood teacher knows how to promote children's cognitive development and their understanding of their world through active, hands-on exploration of science concepts and processes.

Competency 21 Assessment. The early childhood teacher understands how to use a variety of assessment strategies to monitor young children's progress in achieving outcomes and to plan learning activities in all domains.

Competency 25 Materials and resources. The early childhood teacher understands how various types of materials and resources, including current technology, can be used in early childhood classrooms to support learning in all domains for all children.

COURSE REQUIREMENTS

Required activities and assignments

1. **Professional Behaviors:** Attendance online is required; regular, consistent participation is important. Excessive absences (less than 6 hours a week logged in to D2L learning, or 3 days without logging into D2L learning- SUMMUER course) may prompt an administrative withdrawal. *We will try to have a few virtual discussions via Zoom.
 - **PLAN to work on this course 3 hours a day Mon-Thur.**
 - **HOW:**
 - **Read** textbook assignments, supplemental reading assignments, lecture notes, PowerPoint presentations, and resource links.
Check Leo eMail frequently and **D2L** for announcements.
 - **Discussions:** Attend at least 1 Zoom/ You See U and participate in break out groups.
 - **Projects & Reflection:** Participate as posted in D2L learning units. Personal reflection that describes how you grew in understanding for each content area and projects (complete matrix with evidence).

Aligns with competencies 15-18

Mathematics, Science & Social Studies

Assignments:

CONTENT:

1. Evidence of learning (self-designed to meet your learning needs/desires)- options could be a daily journal by TEKS or standard, with application: project-based or inquiry-based lesson plan, lessons in summer school teaching based on learning, practicing with students (video this) OR follow and complete the recommended rubric.
2. A Final product (math activity based on application from chapters in the book, OR full lesson plan with direct connections from the textbook, design science inquiries, and SS integration strategies).

Aligns with competencies 16-18

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Pedagogy (teaching)

3. Improving DAP (developmentally appropriate practice) in our teaching.

Mathematics: understand the mathematical strands: Beginning Number Concepts, Addition & Subtraction (joining/separating), Place Value, Geometry and Measurement (ECE), how to prepare the classroom, how to integrate with books and technology, how to lead discourse, how to design learning tasks and how to assess learning.

SCIENCE: understand inquiry based (3 types) and design inquiries for each area of science (looks at the TEKS or EC standards). Learn how to integrate books and technology, and how to assess learning.

* You could utilize Makerspace pedagogy to integrate Mathematics and language arts into your inquiries.

Social Studies: Record at least one integration strategy for each Big Idea in SS (with reading, math or science). Include ways to practice and model social skills, and citizenship throughout daily routines.

Aligns with competencies: 15- 18, 25

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Integration*

4. Survey of Children’s Literature representing non-dominant cultures and connect to mathematics (3), science (3) and social studies to story(2) and apps:

Annotate (8 NEW to you) children’s books. They must have connections to our content areas: science should connect to your inquiries, math to your strands, and SS to citizenship or social skills.

Research and annotate 3 (NEW to you) apps in each (ma, sc, ss). These should be for assisting in virtual teaching or assist in promoting thinking alongside an in-class lesson. Do NOT choose apps that are rote practice, they must be conceptual, interactive and if possible include listening/reading.

5. **Extra credit** Create a plan for a *Makerspace unit (integrating science/ math and either ELAR/SS).

Aligns with competencies: 15-18, 25

6. Brainstorm ideas for authentic assessment in Mathematics, Science and Social Studies.

(This will be in charts provided as the main option in each content area)

Aligns with competencies: 21

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Assessment

Grading Scale: A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F = below 60%
(NO rounding).

TECHNOLOGY REQUIREMENTS

The following technology is required for success in this course.

- Internet access/connection – high speed recommended (not dial-up)
- Headset/Microphone/Webcam (especially for ClassLive synchronous sessions)
- Word Processor (i.e. MS Word or Word Perfect) **save all files as doc, or pdf. files**

Additionally, the following hardware and software are necessary to use D2L learning:

Our campus is optimized to work in a Microsoft Windows environment. This means our courses work best if you are using a Windows operating system (XP or newer) and a recent version of Microsoft Internet Explorer (6.x, 7.x, or 8.x).

Your courses will also work with Macintosh OS X along with a recent version of Safari 2.0 or better.

*Along with Internet Explorer and Safari, D2L learning also supports the Firefox browser (3.x) on both Windows and Mac operating systems. **Be sure any files you send are doc or pdf.***

It is strongly recommended that you perform a “Browser Test” prior to the start of your course. To launch a browser test, login in to D2L learning, click on the ‘myCourses’ tab, and then select the “Browser Test” link under Support Services.

Follow the operating system guidelines published here <https://secure.D2Llearning.com/tamuc/index.learn?action=technical>.

ACCESS AND NAVIGATION

This course will be facilitated using D2L learning, the Learning Management System used by Texas A&M University-Commerce. To get started with the course, go to <https://leo.tamuc.edu/login.aspx> or <http://myLeo.tamuc.edu>. One shortcut into D2L learning is <http://online.tamuc.org>. You will need your CWID and password to log in to the course. If you do not know your CWID or have forgotten your password, contact Technology Services at 903.468.6000 or helpdesk@tamuc.edu.

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement:

Communicate with me as needed utilizing email. During the weekdays I will respond within 24 hours. Usually I am online from 9-11:30 and again in the afternoon.

D2L learning Student Technical Support (QM 6.6, 7.1)

Texas A&M University-Commerce provides students technical support in the use of D2L learning. The student help desk may be reached by the following means 24 hours a day, seven days a week.

Chat Support: Click on '*Live Support*' on the tool bar within your course to chat with an D2L learning Representative.

Phone: 1-866-656-5511 (Toll Free) to speak with D2L learning Technical Support Representative.

Email: helpdesk@online.tamuc.org to initiate a support request with D2L learning Technical Support Representative.

Help: Click on the '*Help*' button on the toolbar for information regarding working with D2L learning (i.e. How to submit to dropbox, How to post to discussions etc...)

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures:

Attendance

It is hard to learn if you are not engaged. We do important things every 'day' of class – don't miss them. Excessive absences (less than 6 hours a week online or reading, or 3 days without logging into D2L learning) may prompt an administrative withdrawal. There will also be several Zoom/You See U meetings (attendance at one is strongly suggested).

University Specific Procedures:

Academic Honesty Policy

Texas A&M University-Commerce does not tolerate **plagiarism** and other forms of academic **dishonesty**. Conduct that violates generally accepted standards of academic honesty is defined as academic dishonesty. "Academic dishonesty" includes, but is not limited to, plagiarism (the appropriation or stealing of the ideas or words of another and passing them off as one's own), cheating on exams or other course assignments, collusion (the unauthorized collaboration with others in preparing course assignments), and abuse (destruction, defacing, or removal) of resource material.

We suggest these web resources to students for reference regarding what constitutes plagiarism and how to avoid it: <http://www.plagiarism.org/> or

<http://www.unc.edu/depts/wcweb/handouts/plagiarism.html> or

<http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml>

Disciplinary action for these offenses may include any combination of the following:

1. Point deduction on an assignment.
2. Failure for an assignment.
3. A grade of zero for an assignment.
4. Failure for the course.
5. Referral to the Academic Integrity Committee or department head for further action.
6. Referral to the Dean of the College of Education and Human Services as appropriate.
7. Referral to the University Discipline Committee.

Drop a Course <https://www.tamuc.edu/admissions/oneStopShop/registrar/forms/default.aspx>

Students who wish to drop a course are responsible for initiating this action. Students may drop a class with a full refund (if remaining enrolled) until the census day of the particular term. Census date is the 4th university class day of summer or 2nd university class day of a mini term. After census date, eligible students may use their MyLeo to process drops online. The student must obtain approval from the department/instructor to drop after census date.

Administrative Withdrawal

<https://www.tamuc.edu/admissions/oneStopShop/registrar/forms/default.aspx>

It is the prerogative of the faculty to drop students from courses in which they have accrued excessive absences as defined in the course syllabus. In such cases, faculty members recommend through the department head to the appropriate college dean that a student be dropped from a class. The faculty member will document absences and will make a reasonable effort to communicate with the student prior to recommending the drop. If approved, the college dean will forward the recommendation to the Registrar's Office.

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
TAMUC- Gee Library 132
Phone (903) 886-5150 or (903) 886-5835
StudentDisabilityServices@tamuc.edu
[Student Disability Resources & Services](#)

Student Conduct All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment (see *Code of Student Conduct from Student Guidebook*).

Campus Gun Law (effective Fall, 2016)

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 (<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>) and/or consult your event organizer). 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.

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.