



**ECE 535: Math, Science & Social Studies Curriculum
SUMMER I 2015 ONLINE**

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COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings:

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

Textbooks (Optional):

These three textbooks are standards of early childhood Science, Mathematics, and Social Studies curriculum and pedagogy. We will reference them occasionally, but the bulk of our reading comes in eCollege, and on the course website. You must have Adobe Reader.

Fraser-Abder, Pamela. (2011). *Teaching Emerging Scientists: Fostering Scientific Inquiry with Diverse Learners in Grades K-2*. Pearson. ISBN 0-205-56955-2.

Smith, Susan Sperry. (2013). *Early Childhood Mathematics (5th Ed.)*. Pearson. ISBN 0-13-261368-9.

Wallace, Melanie. (2005). *Social Studies: All Day Every Day in the Early Childhood Classroom*. Cengage Learning. ISBN 1401881971.

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

Hours: 3

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

Course Process

1. Active engagement and participation in eCollege: Resources
2. Deep reading of assigned readings, in eCollege
3. Participating in robust discussions – 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

(16 weeks packed into 4 physical weeks: June 8-July9)

1. **Professional Behaviors:** Attendance online is required; regular, consistent participation is important. We do important things every week of class – don't miss it. Excessive absences (less than 6 hours a week logged in to eCollege, or 5 days without logging into eCollege) may prompt an administrative withdrawal.
 - **Read** textbook assignments, supplemental reading assignments, lecture notes, PowerPoint presentations, and resource links.
 - **Check Leo eMail** frequently, at least twice a week.
 - **Discussions:** Participate in frequent online class discussions, whole class or small groups. Most are asynchronous – not live. Note the discussion board rubric in eCollege: Tools: DocSharing: **Discussion Board Rubric.pdf**. Occasional synchronous (real-time, live) AdobeConnect, CHAT or CLASSLIVE sessions require your participation when scheduled. Occasional opportunity, optional, to go onsite to schools and centers for guided observation.
 - **Quizzes & Exams:** Participate as posted in eCollege units.

Aligns with competencies 15-19

Mathematics, Science & Social Studies

Assignments:

1. Self-assessments in each content area (graded for completion)
2. Evidence of learning (self-designed to meet your learning needs/desires)- could be in the notebook as reflection, summary, application: lesson plan, summer school teaching, practicing with students (video this).

3. Compile a digital/paper notebook of **strategies by content area [day 23- for integration]**. Include ways to introduce new strategies, convey big ideas, and engage students (0-8) in concepts in the content area. Also list possible: assessments; intervention; and resources and ways to differentiate.

Aligns with competencies 16-19

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Science and/or Mathematics, and/or Social Studies

4. Identify a specific learner, real or fictitious, and create an **Inquiry Challenge or Case Study** for him or her.

Introduction

Identify a specific learner.

Specify the conceptual framework, the “funds of knowledge” the learner brings to the Inquiry Project.

Use an appropriate measure to pre-assess his or her interests in Inquiry.

Engaging Activities

Formulate a question, an Inquiry

Construct an engagement, activities, or teaching strategy to aid in her mastery of three to five TEKS in each of three to five domains. (Utilize tech if possible.)

Evaluate the results to make inferences about her engagement in Inquiry.

Documentation

Document your learning, creatively, artistically, expressively, and exactly (must include details from the introduction, the activities, and results [see above]). Then Write a reflection of what you learned by doing this in your digital/paper notebook.

Aligns with competencies: 15- 19, 25

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Integration

5. Survey of Children’s Literature (that connect mathematics, science and social studies to story) and apps

Annotate 20 children’s books (they must have connections to our content areas, hopefully all three areas)

Research and annotate 10 apps that promote the content (and hopefully show integration, for example reading/listening about science concepts)

Aligns with competencies: 15-18, 25

6. Quizzes & Exams

7. **Extra credit** (15 points) create an integrated lesson plan incorporating all three content areas for your teaching (in the fall). It may be easiest to start with a story or with science TEKS. (Utilize 5E lesson plan.)

Aligns with competencies: 15-18, 25

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 eCollege:

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, eCollege 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 eCollege, click on the ‘myCourses’ tab, and then select the “Browser Test” link under Support Services.

Follow the operating system guidelines published here

<https://secure.ecollege.com/tamuc/index.learn?action=technical>.

ACCESS AND NAVIGATION

This course will be facilitated using eCollege, 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 eCollege 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@tamu-commerce.edu.

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement:

Communicate with me as needed utilizing ‘virtual office’. I will normally check in daily (M-F, and once or twice on the weekend).

eCollege Student Technical Support (QM 6.6, 7.1)

Texas A&M University-Commerce provides students technical support in the use of eCollege. 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 eCollege Representative.

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

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

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

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures:

Attendance

Attendance online is expected; regular, consistent participation is important. We do important things every week of class – don't miss it. Excessive absences (less than 6 hours a week logged in to eCollege, or 5 days without logging into eCollege) may prompt an administrative withdrawal.

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.
8. Communication of student's behavior to the Teacher Certification Office and/or Dean of the College of Education as constituting a reason to bar student from entering into or continuing in a teacher certification program. Procedures, A 13.04, 13.12, 13.31, and 13.32

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 12th University class day of Fall or Spring, 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

Texas A&M University-Commerce

Gee Library 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

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](#)).