



EDCI 540 - Mathematics Instruction for the 21st Century-Instruction

Section: 01W

COURSE SYLLABUS: Summer 1 2021

Instructor: Dr. Melanie Fields, Assistant Professor

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COURSE INFORMATION

Textbook(s) Required:

5 Practices for Orchestrating Productive Mathematics Discussion, 2nd Edition

ISBN# 978-1-68054-016-1

Principals to Actions: Ensuring Mathematical Success for All

ISBN# 978-0-87353-774-2

Course Description:

This course prepares students for success with the Texas Essential Knowledge and Skills for Math. This course takes a closer look at how children learn mathematics, and how we can foster a mindset for doing mathematics. It includes: NCTM's principles for mathematics education; ways children develop mathematical understanding, problem solving skills, and processes used to get there; analyzing student's error patterns; and resources for teaching mathematics.

Student Learning Outcomes:

1. Develop the skills and knowledge necessary to support children's understanding of mathematics in ways that promote mathematical understanding, application in meaningful and engaging ways.
2. Develop the ability to design and/or select mathematical activities that promote problem-solving and mathematical thinking/reasoning.
3. Develop an understanding of how to assess students' understanding and adapt their teaching or lesson design to enhance learning and improve instruction.
4. Develop strategies for true differentiation and understand its role in helping ALL students.

5. Understand how to integrate mathematics with other subjects for better connections and meaningful teaching.
6. Develop a more positive disposition for doing and teaching mathematics.

COURSE REQUIREMENTS

Instructional Methods

Students will experience many types of instructional strategies on assessment - many of which focus on a student-centered approach, for example, Jigsaw. Discussion on the strategies of how they are being used and how to implement them in the K-12 environment.

Activities/Assessments

Module Assignments (e.g. quizzes/activities/reflections/problem solving)	25 points each
Online postings on readings for each module	25 points each
Final Project	300
**Other assignments, online zoom meetings, bonus point opportunities	Various points

**Note: the Final Project will serve as the final exam

Dual Due Date System

- Work for each module will be due at midnight of the last night of the module (see listing of dates in calendar section below)
- Sundays are assignment free, “catch up” days. All work due during the prior week may be submitted by midnight on Sunday of that week for full credit. Sunday midnight is the **UNEDD “Ultimate No Excuses Due Date.”** Late work submitted after the UNEDD will not be accepted.

Final Grades will be determined based on the following percentages:

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

Descriptions of Assignments:

Weekly Assignments: *These tasks will carry us from module to module and will be related to the reading we are doing or topics we are discussing. They include quizzes/reflective activities papers on readings, current events, and online postings.*

Final Project: You will develop a mathematical unit for your classroom that aligns with the principals, provides opportunities for diverse learners, and provides opportunities for discussion of mathematical topics. There will be three components that generate the 300 points. More information will be provided in D2L.

Note: Additional assignments or revisions to assignments may occur during the semester. Also, late work will not receive credit, however, ALL work must be completed (late or not) in order to receive an "A."

Grading

The final course grade will be determined by adding the points earned and dividing that total by the total possible points. This percentage will be compared to the scale below.

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

TECHNOLOGY REQUIREMENTS

Note: This course is 100% online. Please review the technology requirements carefully. A reliable high speed access to the internet will be necessary to complete this course. Highly recommended that students develop a backup plan for both equipment and internet access -technology issues are not a valid excuse for missing assignment deadlines.

The following information has been provided to assist you in preparing to use technology successfully in this course. In terms of technology eCollege recommends:

- [Windows Users](#)
 - Windows 7, XP or Vista
 - 56K modem or higher
 - Soundcard & Speakers
 - Firefox, Chrome or Microsoft Internet Explorer
- [Mac OS User](#)
 - Mac OS X or higher (in classic mode)
 - 56K modem or higher
 - Soundcard & Speakers
 - [Apple Safari](#)

- Internet access/connection – high speed recommended (not dial-up) - Note: you must be able to access the university library databases

- Word Processor (i.e. MS Word or Word Perfect)

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement:

Use the email address to communicate with me outside of class sessions.

We will have at least two voluntary Zoom sessions, so be sure to have access to a microphone and webcam. Dates and times TBD

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course 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. Plagiarized assignments will receive no credit.

See <http://www.plagiarism.org/> for more details about how to avoid plagiarism.

University Specific Procedures:

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 Guide Handbook*).

Attendance Policy:

As per University Policy B-19: Students are expected to be present for all class meetings for any course in which they are enrolled. Students are responsible for learning about and complying with the attendance policy stated in the catalog, Student's Guidebook, and/or faculty syllabus. Students will be allowed to make up missed work if the absence is determined excused by the instructor. **"Faculty members may recommend to the appropriate college dean that a student be dropped from a course when unexcused absences reach approximately 20% of total scheduled class meetings for the term."**

Campus Carry Policy :

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/rulesProcedure/s/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.

The instructor reserves the right to make changes to the schedule of the class. Any alterations will be announced in class or via email by the instructor. Students who do not attend class or check their email assume responsibility for missing alterations to the course.