MATH 1350.71W, Topics in Mathematics for Elementary Teachers
COURSE SYLLABUS: Spring 2019

INSTRUCTOR INFORMATION

Instructor: Laura Beene
Office Location: Binnion 303A
Office Hours: MWF 10am – 11am, Tuesday 11:15-1:15
Office Phone: 903-468-3330
University Email Address: laura.beene@tamuc.edu
Preferred Form of Communication**:** email
Communication Response Time: 24 hours

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Optional Texts and/or Materials: Students are required to have access to *Learning Mathematics in Elementary and Middle Schools (5th or 4th Edition)* by W. G. Cathcart, et al. (ISBN 0132420996 or 0131700596). We will discuss chapters 1-5 from the textbook.

A variety of supplemental materials will be provided to students throughout this semester. Students will need a **three-ring binder** to keep and organize course materials, notes, and graded work. Notebook will be checked each exam time. Students will also need **a basic calculator, a ruler (with metric and standard measurement), scissors, stapler, and colored pencils**. All exams must be completed in pencil.

Course Description

Topics include problem solving and reasoning, sets, numeration, the four fundamental operations of arithmetic, number theory, integers, fractions, decimals, mental arithmetic and estimation. Students should already have substantial skills in these areas. The course focuses on underlying concepts and multiple techniques of explaining the concepts in addition to extended problem-solving. Prerequisite: Math 1314 with grade of C or better.

As a future teacher, student must be able to explain mathematics to one's students, and not just teach rote manipulations of numbers and symbols. Students should know and understand more mathematics than what they teach! The goal of this course is beyond teaching simple mathematical computations and to assist students in developing an understanding of mathematics.

The *syllabus/schedule are subject to change*.

Student Learning Outcomes

Upon completion of Math 1350, students will be able to:

1. Demonstrate, illustrate, & communicate concepts of whole numbers, fractions, decimals and their operations using manipulative & various models
2. Identify patterns and solve problems with the topics of sets and Venn Diagrams
3. Develop deeper understanding of mathematics thinking and connect ideas between mathematical concepts of the above topics
4. Equip with various strategies and become proficient in solving problems

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Students will need to have internet access (on a regular basis), MS Office, and a basic scientific calculator

Instructional Methods

Each week, students will view videos of lectures, demonstration and models, and activities. Several types of manipulative will be demonstrated and used to solve problems. <u>All work should be completed in pencil.</u>

Student Responsibilities or Tips for Success in the Course

It is important for you to regularly access the course for you to be successful. In a face-to-face course, you would normally spend at least 2.5 hours per week IN class, and time outside class on homework and activities. Plan to spend AT LEAST this much time in this course.

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

Attendance, Participation, and Quizzes	5%
Homework, Activities, and Projects	20%
Exams	50%
Comprehensive Final Exam	25%

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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

YouSeeU Virtual Classroom Requirements:
https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements

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

Interaction with Instructor Statement

Students will be expected to interact with the instructor(s) in class, during office hours or via electronic means in an appropriate manner. All instructor contact information is listed on this syllabus and should be used. Please use email to facilitate a quick response.
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COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

Attendance:
Students will be expected to access the course multiple times throughout the week to watch videos and complete all assignments. The videos will contain important information concerning the subject matter and information about assignments.

Homework:
Homework will be assigned each week. **It is extremely important for students to work all assignments in order to be prepared for the exams**. Students can work together with classmates when trying to figure out how to do the problems. Please include classmate(s)' name(s) on the top of students' paper if students have worked with another students for an assignment. **Late work is not typically accepted and will be graded with reduced credits. Assignments that are turned in a week passed the due date will receive a zero for the grade.** Homework will be completed on your own paper at home and then converted to a PDF document and turned in as ONE PDF document.

Quizzes:
Quizzes will be given periodically and the grade will be counted toward students' daily grade. Since regular access to the course is expected, **NO make-up quizzes will be given**. Each quiz will be over material to be emphasized on exams. Quizzes will average into students' daily grade.

Reflections, Activities and Projects:
Reflections, activities or projects will be assigned each week for students to think about, talk about, and practice the material we are covering in class. This is the replacement for the "group work" you would normally do during class time in a face-to-face class. These activities or projects will vary in their scope and should be completed neatly and punctually. Please follow the instructions for each activity or project closely and turn in quality work that reflects students' future profession as a teacher.

Exams:
There will be three scheduled exams before a comprehensive final exam and will consist of a variety of problems and short answer questions. Partial credit may be given on exams IF all work is neatly shown with clear steps. When pictures are drawn to answer a question, figures need to be clearly labeled and easily understood. All exams must be completed in pencil. **Exams will be taken at a face – to –face testing center at your location. Arrangements will be made for each exam at least ONE WEEK before the date of the exam.**

Tentative Testing Schedule: See Weekly Schedule

Final Exam:
The final exam will be a comprehensive exam at the chosen face-to-face testing facility. The final exam will be taken by **Tuesday May 7.**

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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

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

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

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

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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- Room 162
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.

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COURSE OUTLINE / CALENDAR

Week- 1 Syllabus, Problem Solving and Strategies

Week 2 Set and Venn diagram

Week 3 Numeration, Different Bases Operations

Week 4 Models and Strategies for Addition, Subtraction with Whole Numbers, Compose Whole Number Word Problems (Join, Separate, Part-Part-Whole, Compare Problems), & Three Stages of Child Development for Mental Processing of Whole Number Operations

Week 5 Properties of Numbers, Integers, Exam #1 Review

Week 6 Exam 1, Models and Strategies for Multiplication, and Division with Integers

Week 7 Models and Strategies for Multiplication, and Division with Integers, G.C.F. and L.C.M, Factors, G.C.F and L.C.M, Number Theory, Divisibility Rules,

Week 8 Introduction for Fractions, Line, Area, and Set Models for Fractions, & Using Manipulatives for Fractions

Week 9 Line, Area, and Set Models for Fractions, & Using Manipulatives for Fractions Exam #2 Review

Week 10 Exam #2, Add and Subtract Fractions Using Line, Area, and Set Models, Four Ways to Subtraction Mixed Fractions

Week 11 Models and Strategies of Multiplication and Division of Fractions, Equivalent Fractions, Fraction Sense

Week 12 Word Problems for Fractions and Using Pictures and Models to Solve Word Problems with Fractions

Week 13 Introduction of Decimal Numbers, Models for Decimal Numbers, Number Sense of Decimal Numbers, and Models and Strategies for Operations of Decimal Numbers,

Week 14 Review for Exam 3, & Exam 3

Week 15 Review for Final Exam

Week 16 FINAL EXAM **Tuesday May 7, 8am-10am**

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