

# MATH 1350.71W, Topics in Mathematics for Elementary Teachers

COURSE SYLLABUS: Summer I 2020

### **INSTRUCTOR INFORMATION**

Instructor: Laura Beene Office Location: Binnion 311

Office Hours: Available online Monday and Wednesday 1pm-3:30pm

Office Phone: 903-886-5946

University Email Address: laura.beene@tamuc.edu

Preferred Form of Communication: email

Communication Response Time: 24 hours Monday-Friday, 48 hours on weekends

### **COURSE INFORMATION**

Materials – Textbooks, Readings, Supplementary Readings

Textbook: Students are required to have access to *Mathematics for Elementary School Teachers (7<sup>th</sup> Edition)* by Bassarear and Moss (ISBN 978-1-337-62996-6). We will discuss chapters 1-4 from the textbook. Homework assignments will be from the textbook.

A variety of supplemental materials will be provided to students throughout this semester. Students will benefit a **three-ring binder** to keep and organize course materials, notes, and graded work. 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

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what they teach! The goal of this course is beyond teaching simple mathematical computations and to assist students in developing an understanding of mathematics.

# **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. Students will also need to have access to a webcam (or one built into a laptop, computer, or phone) and stable internet access for up to 2 hours for exams. A printer will be beneficial, but not required.

### **Instructional Methods**

Each week, students will view videos of lectures, demonstration and models, and activities. Several types of manipulatives will be demonstrated and used to solve problems. All work should be completed in pencil. Students are required to watch all videos and complete all assignments.

# 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 8 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**

| Participation, Projects, and Quizzes | 5%  |
|--------------------------------------|-----|
| Homework, and Activities             | 10% |
| Exams                                | 60% |
| Comprehensive Final Exam             | 25% |

### 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 <a href="mailto:helpdesk@tamuc.edu">helpdesk@tamuc.edu</a>.

**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.

### 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 day. 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 two 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.

This course is being offered fully online, including the exams. As such, all students enrolled in this course will be required to take their exams through the online proctoring provided from the Academic Testing Center (ATC). This service is free to all TAMUC students, but requires the usage of a webcam as well as a stable internet connection. If you do not have a separate webcam, you are free to use the built-in camera in your laptop, tablet, and/or phone in order to fulfill this requirement of the course. The usage of a microphone and/or headset is also recommended. In addition, all proctored exams will be recorded for your instructor's viewing, in case any discrepancies arise during the testing process. Once the teacher has scheduled each exam, students will be required to sign up for a testing time with the Academic Testing Center. The ATC is offering their services Mondays 10am - 8pm, Tuesday, Wednesday, and Thursday from 10am - 6pm, and on Fridays from 10am - 2pm. The testing times available will be on the even hours for those days, depending on what that day's ATC hours are, and will last for a two-hour time slot. (Example: If a student needs to test on a Monday, testing times will be at 10am, noon, 2pm, 4pm, and 6pm. However, if a student needs to test on a Friday, the available time slots will only be 10am and noon.) The first 15 minutes of each testing period are reserved for student check-in, where the testing proctor will check student identification, allow students to print exams if applicable, and assess the student's test taking environment for academic honesty issues. During this time period, each student will be required to have a photo ID available to show to the webcam when the testing period first begins. Exams will begin approximately 15 minutes into the two-hour time slot. Once the exam has begun, new students who were not verified during the first 15 minutes will not be allowed to enter the testing site, thus (hopefully) minimizing interruptions to students who have already begun their exams. Thus, you should be ON TIME for your testing time slot. If you are more than 15 minutes late, you will need to reschedule for a later time slot, assuming there are still available times. If there are no more available time slots, students will need to communicate their situation to their instructor. One the exam has begun, testing students will be expected to be within view of their webcam until they have demonstrated for the proctor/show their webcam the exam papers they are submitting by scanning and uploading, if needed for the exam. During this two-hour time slot, students are expected to maintain a stable internet connection. Any internet disruptions may be considered an effort to obtain information in an inappropriate manner. In general, an extended internet disruption will result in a zero on the exam, with the instructor working individually with students on a case-by-case basis. Please speak with the instructor if you have had an extended interruption to your internet service during a proctored exam. More details about this testing process will be shared with the class through the D2L course and via email as we near the first 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 **Wednesday July 1st.** 

# **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.

 $\underline{http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx}$ 

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 <u>Attendance</u> webpage and <u>Procedure 13.99.99.R0.01</u>.

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 <u>Carrying Concealed Handguns On Campus</u> 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.

### COURSE OUTLINE / CALENDAR

<u>Week- 1</u> Syllabus, Problem Solving and Strategies, Sets and Venn diagram, Numeration, Different Bases Operations, 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

<u>Week 2</u> Properties of Numbers, Integers, 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, Exam #1 Review, Exam #1 (June 11)

<u>Week 3</u> Introduction for Fractions, Line, Area, and Set Models for Fractions, & Using Manipulatives for Fractions, Add and Subtract Fractions Using Line, Area, and Set Models, Four Ways to Subtraction Mixed Fractions, Models and Strategies of Multiplication and Division of Fractions, Equivalent Fractions

<u>Week 4</u> Fraction Sense, Word Problems for Fractions and Using Pictures and Models to Solve Word Problems with Fractions, Introduction of Decimal Numbers, Models for Decimal Numbers, Number Sense of Decimal Numbers, and Models and Strategies for Operations of Decimal Numbers, Review for Exam 2, & Exam 2 (June 25)

Week 5 Review for Final Exam, FINAL EXAM Wednesday July 3