# College of the Mainland <br> Syllabus <br> Math 1350.221CL -Spring 2022 <br> Mathematics for Teachers I <br> T/TH 6:00-7:20 pm 

## Instructor Information: Carol Switoyus <br> cswitoyus@com.edu <br> 409-933-8220

## Student Hours and location: M/W 1:00-1:45 pm; T/TH 1:30-5:45 pm; F 10:00-11:30 am

 Steam \#325-17Required Textbook: The textbook for this course is: Mathematics for Elementary Teachers by Musser, Peterson, Burger (10th ed.) The companion website is http://www.wiley.com/college/musser.

Course Description: Math 1350 is the first course in a two-semester course sequence designed to meet the mathematics requirements for students seeking to obtain an elementary teaching certificate. The course is a set theory approach to the development of the real number system, fundamental operations and concepts of arithmetic, systems of numeration, number theory with an emphasis on problem solving strategies and critical thinking.

## Course requirements:

HW/Daily: There will be homework assigned for every section covered. Although the homework assignments themselves will not be submitted or graded, they reflect what to expect on the tests and quizzes. Your daily grade will be based on participation and in-class activities.
Quizzes/Exams: There will be four quizzes, four chapter-exams and a comprehensive final. All dates are in the course outline. There are no retakes on any of the quizzes or exams.

## Determination of Course Grade/Detailed Grading Formula:

The course grade will be determined by the following formula:
Final Average = 60\% Exam Average $+10 \%$ HW/Daily Average $+10 \%$ Quiz Average $+20 \%$ Final Exam
Grading Scale: $\quad$ Grade A: Final Average in [89.5, 100]
Grade B: Final Average in $[79.5,89.5$ )
Grade C: Final Average in $[69.5,79.5$ )
Grade D: Final Average in [59.5, 69.5)
Grade F: Final Average in [0, 59.5)

## Late Work, Make-Up, and Extra Credit:

In-class activities and quizzes may not be made up. Tests may be made up provided you notify me in advance of any issues. There is no extra credit. (Subject to change at the discretion of instructor.)

Attendance Policy: Attendance and participation is required.

Communicating with your instructor: ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. I will be sending all communication via your COM email, so please check regularly.

| Student Learner Outcome | Maps to Core Objective | Assessed via this <br> Assignment |
| :--- | :--- | :--- |
| 1. Explain and model the arithmetic <br> operations for whole numbers and <br> integers. | Empirical and Quantitative Skills <br> (EQS) | Exam 1, 4 |
| 2. Explain and model computations with <br> fractions, decimals, ratios, and <br> percentages | Empirical and Quantitative Skills <br> (EQS) | Exam 3 |
| 3. Describe and demonstrate how factors, <br> multiples, and prime numbers are used to <br> solve problems. | Critical Thinking Skills (CT) | Exam 2 |
| 4. Apply problem solving skills to <br> numerical applications. | Critical Thinking Skills (CT) | Quiz 1 |
| 5. Represent and describe relationships <br> among sets using the appropriate <br> mathematical terminology and notation. | Visual Communication Skills (CS) | Exam 1 |
| 6. Compare and contrast structures of <br> numeration systems. | Critical Thinking Skills (CT) | Exam 1 |

## Academic Dishonesty:

College of the Mainland is committed to a high standard of academic integrity. All students are responsible for honesty and independent effort. Incidents of academic and scholastic dishonesty (including cheating, plagiarism, and collusion) will be dealt with in a manner that is consistent with College Policy and the Student Handbook. Any student found to have been academically dishonest on an assignment, quiz or exam will receive a zero for that assignment, quiz or exam and he or she will be referred to the Office of Student Conduct for further disciplinary action. Please read the sections on Standards of Student Conduct and Discipline and Penalties in the on-line Student Handbook.

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Leslie Richardson - Mathematics Department Chair at lrichardson@com.edu.

Course outline:

Wk Date
1 Jan 17-21

2 Jan 24-28

3 Jan 31 - Feb 4
Jan 31 - Feb 4

## Topic

The Problem-Solving Process and Strategies
Three Additional Strategies
Sets as a Basis for Whole Numbers
Whole Numbers and Numeration
The Hindu-Arabic System
Quiz 1: 2.1-2.3 (2/1)
Addition and Subtraction

## Section

1.1
1.2
2.1
2.2
2.3

Multiplication and Division

Written Algorithms for Whole-Number Operations4.2
Algorithms in Other Bases ..... 4.3
Feb 28 - Mar 4 Quiz 2: 4.1-4.3 (3/1)
Primes, Composites, and Tests for Divisibility ..... 5.1
Counting Factors, GCF, LCM ..... 5.2Mar 7-11 Review Exam 2Exam 2: Ch. 4, 5 (3/10)********* College Closed - Spring Break **********
Mar 21-25 The Set of Fractions ..... 6.1
Fractions: Addition and Subtraction ..... 6.2
Fractions: Multiplication and Division ..... 6.3
Mar 28-31 Quiz 3: 6.1-6.3 (3/28)
Decimals ..... 7.1
Operations with Decimals ..... 7.2
Ratio and Proportion ..... 7.3
Percent ..... 7.4
Apr 4 - 8 Review Exam 3Exam 3: Ch. 6, 7 (4/7)
Apr 11-15 Addition and Subtraction ..... 8.1
Multiplication, Division, and Order ..... 8.2
Apr 18-22 Quiz 4: 8.1-8.2 (4/19)
The Rational Numbers ..... 9.1
The Real Numbers ..... 9.2
Apr 25-29 Relations and Functions ..... 9.3
Functions and Their Graphs ..... 9.4
Review Exam 4
May 2-6 Exam 4: Ch 8, 9 (5/2)Final Exam Review
May 9-13 Final Exam (5/10)

## Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook. <https://build.com.edu/uploads/sitecontent/files/student-services/Student Handbook_2019-2020v5.pdf. An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal. https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_20192020v5.pdf

Academic Success \& Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact Holly Bankston at 409-933-8520 or hbankston@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Counseling Statement: Any student needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or hbankston@com.edu. Counseling services are available on campus in the student center for free and students can also email counseling@com.edu to set up their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

Textbook Purchasing Statement: A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the $1^{\text {st }} 8$-week session is March 2. The last date to withdraw from the 16 -week session is April 25 . The last date to withdraw for the $2^{\text {nd }} 8$-week session is May 4.
$\mathrm{F}_{\mathrm{N}}$ Grading: The $\mathrm{F}_{\mathrm{N}}$ grade is issued in cases of failure due to a lack of attendance, as determined by the instructor. The $\mathrm{F}_{\mathrm{N}}$ grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the $F_{N}$ grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an $\mathrm{F}_{\mathrm{N}}$ grade.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

COVID-19 Statement: All students, faculty, and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland's Coronavirus Information site at www.com.edu/coronavirus. In compliance with Governor Abbott's May 18 Executive Order, face coverings/masks will no longer be required on COM campus. Protocols and college signage are being updated. We will no longer enforce any COM protocol that requires face coverings. We continue to encourage all members of the COM community to distance when possible, use hygiene measures, and get vaccinated to protect against COVID-19. Please visit com.edu/coronavirus for future updates.

