



Math 0315.253
Foundations of Algebra
Fall 2022
6:00pm – 7:20pm, M & W Steam 105

Instructor Information: Alan Bigos, abigos@com.edu, 409-933-8327

Student hours and location: 325-16 Steam

M&W: 11:00 – 12:15pm

T&Th: 3:00 – 4:35pm

F: 9:00 – 10:50am

Required Textbook/Materials: The textbook for this course is: Intermediate Algebra, 8th edition, by Tobey, Slater, Blair and Crawford by Pearson. Textbooks and/or courseware will be available through VitalSource digitally. Cost of the course materials: \$70.30. The course materials will be available on the first day of class and you will be given the opportunity to opt-out of the e-book prior to the census day of the class. If you choose not to use the course materials, you will be reimbursed after census day of the class. The materials are not refundable after the census day. You will receive an email with more information about the use of the course materials closer to the start of the semester.

Course Description: This course is designed to develop skills and understanding in the following areas: basic algebra concepts to include exponents, factoring and radicals; relations and functions, inequalities, algebraic expressions, and equations (absolute value, polynomial, radical, rational), with a special emphasis on linear and quadratic expressions and equations. Prerequisites/co-requisites: Prerequisite of TSIA2 Math Diagnostic 4. This course does not transfer.

Upon successful completion of MATH 0315, students will:

1. Define, represent and perform operations on real and complex numbers.
2. Recognize, understand and analyze features of a function.
3. Recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, radical, and rational expressions.
4. Identify and solve absolute value and linear inequalities.
5. Model, interpret and justify mathematical ideas and concepts using multiple representations.
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7. Connect and use multiple strands of mathematics in situations and problems, as well as to the study of other disciplines.

Course requirements

Four regular Tests

Comprehensive final exam

Online Homework Assignments (My Math Lab/Brightspace)

Online Quizzes (My Math Lab/Brightspace)

Written Assignments

Determination of Course Grade/Detailed Grading Formula

Tests

The Tests will be written exams, which require complete, well-reasoned solutions written in detail; this means you must show all steps and proper work, or you will not be given credit for an answer. During Testing situations, make sure that all unnecessary items are put away. No backpacks or books on the desks. Make sure the proctor has a clear line of sight. Spread out. When possible, one student per table.

Final Exam

The Final Exam will be a comprehensive multiple-choice exam. You should still organize your thoughts and show (on scratch paper) all steps needed, to work the problems correctly. Standard testing rules still apply.

Online Homework

The homework assignments appear in My Math Lab, which is accessed through Brightspace. After material is covered in class, you will have a maximum of 3 days to complete the related homework for full credit. You have unlimited tries to get every question right. You should begin the assignments as soon as possible after the material is covered in class. Although the homework is online, you should write out your work and put it in your notebook so you can study from it later.

MyMathLab Quizzes

There are 4 timed quizzes which roughly cover the first half of the material found on each upcoming test. Quizzes appear in My Math Lab, which is accessed through Brightspace. To take a quiz, you must first unlock it by completing at least 70% of the homework from the related sections. If your recorded score is below 70% due to late penalties, email me when you have completed 70% of the problems and I will manually unlock it. **Students who attempt a**

quiz before the initial deadline will be allowed a second attempt. The higher score counts towards your final grade. The initial deadline for quizzes is usually 7 days after we finish covering the related material in class.

Accessing MyMathLab

1. Log into Brightspace
 - a. Click on the My Math Lab link for the appropriate class
 - b. Click on HOMEWORK button and then the homework assignment you wish to do.
2. Use the "Show Me How" aids when needed and complete the homework assignment.
3. Enter your answers then click the CHECK ANSWER button.
4. If needed, click the SIMILAR EXERCISE button to redo the exercise. Note: You should score at least 80% before moving on to the next section.
5. If the submitted answer is correct, click on the SAVE button to send your results to the gradebook. Your grade will show up in the GRADEBOOK and will be automatically accessible by your instructor.
6. Click on the next question to continue.

If your score does not save properly, send me an email indicating the specific question and section number with a picture of your written work attached.

Written Assignments

It is essential that you can communicate mathematics in a non-verbal format. The Tests require you to communicate detailed steps written in an organized format. My Math Lab assignments do not give you practice with this very important skill. The written assignments provide you the opportunity to practice and develop these skills before you need to demonstrate them on Tests.

There will be 4 groups of written assignments, one for each regular Test. Written assignments are due at the beginning of class on the day of the associated test. You will be given a Written Assignment coversheet indicating the assigned problems and any special instructions before they are due. On test days, you will hand in your Written Assignments with the coversheet filled in. Written Assignments will be largely self-graded. Each problem is worth 1 point. To receive credit, you must write the original problem, show sufficient work, and arrive at a clearly stated answer. Count the number of problems which you think should receive credit for and put the

number in the appropriate part of the coversheet. Do this for each section that was assigned. Be sure to note any missing problems. The instructor will spot-check the sections. If there are more points recorded for a section than the instructor feels are appropriate, no points from that section will count.

Class Participation

To maximize learning, students must be actively engaged in the classroom. Staring at the board doesn't cut it. You need to be listening to the discussion, taking notes, asking questions, and helping to maintain a learning atmosphere. Some specific behaviors that we are trying to avoid are "tuning out", not taking notes, and playing with your phone. When you are in class but not participating, you are communicating to the other students that they are wasting their time. That means that you are not only hurting yourself but others as well.

Grading Scale

The following weighting system will be used to determine your overall average.

Comprehensive Final Exam	15%
Regular Exams	60%
MyMathLab Homework	10%
Quizzes	5%
Written Assignments	10%

Your letter grade will be determined by your overall average using the following scale.

Grade A: Final Average is [89.5, 100]

Grade B: Final Average is [79.5, 89.5)

Grade C: Final Average is [69.5, 79.5)

Grade D: Final Average is [59.5, 69.5)

Grade F or Fn: Final Average is [0, 59.5)

Grade I: Given unforeseen circumstances that result in the inability to successfully complete the course objectives, an I-Contract can be requested from the instructor assuming you meet the following criteria:

1. Have a passing overall average (70 or higher)
2. All work completed except for The Final.

(Retaking the placement test does not affect your grades in this course. Your grade will be based on the information outlined above.)

Grade W: If you drop the class after census day, your official grade will be W, regardless of how much of the coursework has been completed. Keep in mind that if you drop a class that is linked to another, you will be dropped from both.

Late Work, Make-Up, and Extra-Credit Policy

Each class meeting is a unique experience involving interaction with other students and cannot be recreated. In-class participation cannot be made up. You are still responsible for what was covered. If you are unable to attend class, you will need to talk with another student or meet with the instructor (in person or virtually) outside of class. Obviously, not everyone will be able to have perfect attendance, for whatever reason. Just be aware that if you are not in the classroom, additional effort will be needed to stay caught up.

All work other than the final must be completed by the day before the scheduled Final. Students will be allowed to substitute 1 low test score with their Final Exam score. **There are no retakes.**

Homework Assignments: You may continue to work on homework assignments after the deadline. Problems from regular homework assignments completed after the deadline will have their scores reduced by 2% for each day late. **You will need to type in the password “late” to gain access to homework problems after the deadlines.** Students who complete the first MML assignment on time will have 2 points added to their score.

Written Assignments: The maximum possible score on a written assignment set will be lowered by 5% for each class meeting that the set is not turned in. Students who complete the online course evaluation will be allowed to resubmit one Written Assignment Set with a due date of the class meeting before the final.

Online Quizzes: Students who do not meet the initial deadline for a quiz can still take that quiz, provided the prerequisite homework scores have been met.

Tests: Officially, there are no makeup tests. If you can provide documentation for special circumstances, we can explore options. Students who complete the online course evaluation will have 2 points added to their score on Test 4.

The deadline for completing all work (other than the final) is December 6.

Attendance Policy

Students at COM are expected to attend and participate in every session of all classes for which they are registered. Regular attendance is a critical component to being successful in courses. Students should consult with their instructors when it becomes necessary to miss a class. Students are required to attend all classes. College of the Mainland recognizes no excused absences other than those prescribed by law.

You cannot make-up classes, and it is your responsibility to be punctual and regularly attend class. It is in your best interest to attend all classes, be punctual, and not leave early. It is extremely difficult to succeed in this course without having good attendance.

To receive credit for attendance you must be in the classroom for the majority of the designated time and sign the attendance sheet for the appropriate time slot. Being in the tutoring or testing area does not count as being in class. Remember, it is your responsibility to sign in. You are still responsible for all the material covered whether you are in class or not.

If you arrive late, please quickly and quietly take your seat and get set up so that you can begin participating in class.

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. Class announcements which do not include personal information may be shared via Brightspace/My Math Lab.

Academic Dishonesty: Any incident of academic dishonesty will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a **grade of zero** on that exam and the student will be referred to the Office of Student Conduct for the appropriate disciplinary action.

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 at 409-933-8329 or lrichardson@com.edu.

Course outline:

This is a tentative schedule. As the semester progresses, adjustments may be needed.

Week	Assignment-due date
1 Aug. 22, 24	<p><i>MyLab Math Orientation – 90% required to gain access to homework.</i></p> <p>1.5 Operations with Variables & Grouping Symbols-Aug. 25 1.6 Evaluating Variable Expressions & Formulas-Aug. 26</p> <p>2.1 First Degree Equations with One Unknown-Aug. 27 2.4 Solving Word Problems-Aug. 28 2.6 Linear Inequalities-Aug. 28 2.3 Absolute Value Equations</p>
2 Aug. 29, 31	<p>2.3 Absolute Value Equations-Sept. 1 Quiz A: Sections 1.5, 1.6, 2.1, 2.3 & 2.4 – Sept. 5 2.8 Absolute Value Inequalities-Sept. 2 3.1 Graphing Linear Equations (<i>Test 2 info</i>)-Sept. 3</p> <p>3.2 Slope of a Line (<i>Test 2 info</i>)-Sept. 4 3.3 Equations of a Line-Sept. 5 Quiz B: Sections 3.1-3.3 – Sept. 7 Review for Test 1</p>
3 Sept. 5, 7	<p>Holiday</p> <p>4.1 Systems of Linear Equations-Sept. 8 Test 1: 1.5, 1.6, & Chapter 2 – Written Assignment 1 due</p>
4 Sept. 12, 14	<p>4.3 Applications of Systems of Equations-Sept. 15 1.4 Rules of Exponents (exclude scientific notation)-Sept. 16 5.1 Polynomials: Adding, Subtracting, Multiplying-Sept. 16</p> <p>5.3 Synthetic Division -Sept. 17 Quiz C: Sections 1.4, 5.1, 5.3 – Sept. 21 5.4 GCF, Factor by Grouping- Sept. 18 5.5 Factoring Trinomials-Sept. 19 Review for Test 2</p>
5 Sept. 19, 21	<p>5.5 Factoring Trinomials-Sept. 22 5.6 Special Case Factoring- Sept. 23 Test 2: Chapters 3, 4 – Written Assignment 2 due</p> <p>5.8 Solving Equations by Factoring-Sept. 24 6.1 Rational Expressions, Simplifying, Multiply, Divide (<i>Test 4 Info</i>)-Sept. 27 Review for Test 3</p>

6 Sept. 26, 28	6.2 Add/Subtract Rational Expressions- <i>Oct. 1</i> Test 3: 1.4 & Chapters 5 – Written Assignment 3 due	<i>Math 1314</i> 1.1 Introduction to Graphing- <i>Oct. 2</i> 1.2 Functions and Graphs- <i>Oct. 2</i>
7 Oct. 3, 5	<i>Math 0315</i> 3.6 Graphing Functions- <i>Oct. 6</i>	<i>Math 1314</i> 1.3 Linear Functions, Slope & Applications- <i>Oct. 6</i> 1.4 Equations of Lines- <i>Oct. 7</i> 1.5 Linear Equations, Functions, Zeros, Applications- <i>Oct. 8</i> Quiz A (Sections 1.1-1.5) – Oct. 12 2.1 Increasing, Decreasing, and Piecewise Functions- <i>Oct. 9</i> 2.2 The Algebra of Functions- <i>Oct. 10</i>
8 Oct. 10, 12	<i>Math 0315</i> 7.2 Radical Expressions and Functions (square root only)- <i>Oct. 13</i> 7.3 Simplifying, Adding and Subtracting Radicals- <i>Oct. 1</i>	<i>Math 1314</i> 2.2 The Algebra of Functions- <i>Oct. 13</i> 2.3 The Composition of Functions- <i>Oct. 14</i> 2.5 Transformations- <i>Oct. 15</i> Test 1 Review
9 Oct. 17, 19	<i>Math 0315</i> 7.4 Multiplying, Dividing Radicals- <i>Oct. 23</i> Quiz D: Sections 7.2, 7.3, 7.4 – Oct. 25	<i>Math 1314</i> Test 1 (Chapters 1 & 2) – Written Assignment 1 due 3.2 Quadratic Equations, Functions, Zeros, Models- <i>Oct. 20</i> 3.3 Graphs of Quadratic Functions- <i>Oct. 21</i> 4.1 Polynomial Functions- <i>Oct. 22</i>
10 Oct. 24, 26	<i>Math 0315</i> 7.6 Complex Numbers (exclude division)- <i>Oct. 30</i>	<i>Math 1314</i> 4.2 Graphing Polynomial Functions- <i>Oct. 27</i> 4.3 Remainder and Factor Theorems- <i>Oct. 28</i> 4.5 Rational Functions- <i>Oct. 29</i> 4.6 Polynomial and Rational Inequalities- <i>Oct. 30</i> Quiz B (Sections 3.2, 4.3 & 4.5) – Nov. 2
11 Oct. 31, Nov. 2	<i>Math 0315</i> Review for Test 4	<i>Math 1314</i> 4.6 Polynomial and Rational Inequalities- <i>Nov. 3</i> Test 2 Review 5.1 Inverse Functions (<i>Test 3 info</i>)- <i>Nov. 5</i> Test 2 (Chapters 3, 4) – Written Assignment 2 due 5.2 Exponential Functions and Graphs- <i>Nov. 6</i>

12 Nov. 7, 9	<i>Math 0315</i> Test 4: 6.1, 6.2, 3.6,7.6- Written Assignment 4 due	<i>Math 1314</i> 5.2 Exponential Functions and Graphs- Nov. 10 5.3 Logarithmic Functions and Graphs- Nov. 11 5.4 Properties of Logarithmic Functions- Nov. 12 Quiz C (Sections 5.1-5.3) – Nov. 14 5.5 Solving Exponential & Logarithmic Eqs- Nov. 13 5.6 Applications- Nov. 14
13 Nov. 14, 16	<i>Math 0315</i> Comprehensive Final Exam Review- Nov. 20	<i>Math 1314</i> 5.6 Applications- Nov. 17 Test 3 Review Test 3: Chapter 5 – Written Assignment 3 due 6.1 Systems of Equations in Two Variables- Nov. 19 6.3 Matrices and Systems of Equations- Nov. 20
14 Nov. 21, 23	<i>Math 0315</i> Comprehensive Final Exam	<i>Math 1314</i> 6.3 Matrices and Systems of Equations- Nov. 23 6.2 Systems of Equations in Three Variables- Nov 28
15 Nov. 28, 30		<i>Math 1314</i> 6.2 Systems of Equations in Three Variables- Dec. 1 6.4 Matrix Operations- Dec. 2 Test 4 Review Quiz D (Sections 6.1-6.4) –Dec. 5 Review for Comprehensive Final Exam Test 4 Part 1 –Written Assignment 4 due
16 Dec. 5, 7		<i>Math 1314</i> Test 4 Part 2 Review for Comprehensive Final Exam Comprehensive Final Exam

W-Day – November 18, 2022

Census Day – September 7, 2022

The syllabus is subject to change at the discretion of the instructor.

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_2019-2020v5.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 Michelle Brezina at 409-933-8124 or mvaldes1@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

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 1st 8-week session is October 5. The last date to withdraw from the 16-week session is November 18. The last date to withdraw for the 2nd 8-week session is December 1.

FN Grading: The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN 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 FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN 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.

Resources to Help with Stress:

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here <https://www.com.edu/community-resource-center/>. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at deanofstudents@com.edu or communityresources@com.edu.