



Math 1314.118H2 and Math 1314.618H2
College Algebra
Spring 2025
T Th 9:30 am – 12:20 pm, ICB 204

Instructor Information

Dr. Jason Duvall
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409.933.8381

Student (Office) Hours and Location

M W 2:00 – 3:30 STEM 325.18
T Th 4:00 – 5:30 STEM 325.18
F 11:00 – 12:30 Tutoring Center

Required Textbook/Materials

Beecher, Jennifer, et al. *College Algebra Plus MyLab Math with Pearson eText – Access Card Package: The College Algebra Series*. 5th ed., Pearson, 2015. ISBN-13: 978-0321981769.

Note: Course materials are available for free via MyLab Math in Brightspace/D2L (no purchase necessary).

Course Description

College Algebra is an in-depth study and applications of polynomial, rational, exponential, and logarithmic functions, and systems of equations using matrices.

Course Requirements

Homework: There will be a homework assignment for each section we cover in class to be completed online using MyLab Math. You can retry any homework question as many times as you like until you get the correct answer.

Quizzes: There will be at least four quizzes to be completed online using MyLab Math. You can retake each quiz just once to improve your score; the higher score will be the one that counts. There may also be regular in-class quizzes. In-class quizzes cannot be made-up or retaken.

Exams: There will be four chapter-exams and a comprehensive final to be completed in class. There are no retakes on any of the exams.

Determination of Course Grade/Detailed Grading Formula

The course grade will be determined by the following formula:

10% Homework Average + 10% Quiz Average + 60% Exam Average + 20% Final Exam

A: 90 – 100

B: 80 – 90

C: 70 – 80

D: 60 – 70

F: 0 – 60

Late Work, Make-Up, and Extra Credit Policy

Late homework and quizzes may be submitted, but there is a 20% grade penalty on late assignments. Tests must be taken at the scheduled time. Make-up tests for missed exams will only be given at the discretion of the instructor if the student notifies the instructor as soon as possible about the absence.

Attendance Policy

Attendance 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.

Student Learner Outcomes

1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions and inverses. Critical Thinking Skills (CT) Exam 1
2. Recognize and apply polynomial, rational, exponential and logarithmic functions and solve related equations. Critical Thinking Skills (CT) Exam 2, 3
3. Apply Graphing Techniques Visual Communication Skills (CS) Exam 2, 3
4. Evaluate all roots (zeros) of higher degree polynomials and rational functions. Critical Thinking Skills (CT) Exam 2
5. Recognize, solve and apply systems of linear equations using matrices. Empirical and Quantitative Skills (EQS) Exam 4

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 addressed in a manner not inconsistent with College Policy and the Student Handbook. Specifically, 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 administration for further disciplinary action.

Student Concerns

If you have any questions or concerns about any aspect of this course, please contact your instructor using the contact information provided above. If, after discussing your concern with the instructor, your concern persists, please contact Leslie Richardson, Mathematics Department Chair, at lrichardson@com.edu.

Course Outline

Week 1 (Mar 10)

Introduction to Graphing 1.1

Functions and Graphs 1.2

Linear Functions, Slopes, Applications 1.3

Equations of Lines and Modeling 1.4

- Linear Equations, Functions, Zeros, and Applications (OL) 1.5
HW 1.1-1.5 due Mar 17
Quiz 1 due Mar 17
- Week 2 (Mar 24)
Increasing, Decreasing and Piecewise Functions (OL) 2.1
The Algebra of Functions 2.2
The Composition of Functions 2.3
Transformations 2.5
Review for Exam 1
HW 2.2-2.5 due Mar 31
- Week 3 (Mar 31)
Exam 1 – Mar 31
Quadratic Equations: Functions, Zeros, and Models (OL) 3.2
Analyzing Graphs of Quadratics 3.3
Polynomial Functions and Models 4.1
Graphing Polynomial Functions 4.2
HW 3.2, 3.3, 4.1, 4.2 due Apr 7
- Week 4 (Apr 7)
Polynomial Division: The Remainder Theorem and the Factor Theorem 4.3
Rational Functions 4.5
Polynomial and Rational Inequalities (OL) 4.6
Inverse Functions 5.1
Review Test 2
HW 4.3, 4.5, 4.6, 5.1 due Apr 14
Quiz 2 due Apr 14
- Week 5 (Apr 14)
Exam 2 – Apr 14
Exponential Functions and Graphs 5.2
Logarithmic Functions and Graphs 5.3
Properties of Logarithmic Functions 5.4
Solving Exponential Equations and Logarithmic Equations 5.5
HW 5.2 – 5.5 due Apr 21
Quiz due Apr 21
- Week 6 (Apr 21)
Applications and Models 5.6
Review Test 3
Exam 3 – Apr 23
Systems of Equations in Two Variables 6.1
HW 6.1 due Apr 28
- Week 7 (Apr 28)
Systems of Equations in Three Variables 6.2
Matrices and Systems of Equations 6.3
Review Exam 4
HW 6.2 – 6.3 due May 5
- Week 8 (May 5)
Exam 4 (online) due May 5
Final Exam Review

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://www.com.edu/student-services/docs/Student_Handbook_2024-2025_v2.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.

Academic Success and Support Services

College of the Mainland is committed to providing students with 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:

Kimberly Lachney, Student Accessibility Services Coordinator

Phone: 409-933-8919

Email: AccessibilityServices@com.edu

Location: COM Doyle Family Administration Building, 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 February 26. The last date to withdraw from the 16-week session is April 21. The last date to withdraw for the 2nd 8-week session is April 30.

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 to help you achieve 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.

Nondiscrimination Statement

The College District prohibits discrimination, including harassment, against any individual on the basis of race, color, religion, national origin, age, veteran status, disability, sex, sexual orientation, gender (including gender identity and gender expression), or any other basis prohibited by law. Retaliation against anyone involved in the complaint process is a violation of College District policy.