

# Department of Mathematics Syllabus for Math 1314-301CL – Fall 2022 Dual Credit College Algebra M-F in Room S209

Instructor Information: Danielle H. Smith dsmith2@dickinsonisd.org 281-229-6553

**Student Hours (Tutorials):** T/TH 2:45-3:30pm in S209 **Conference:** 4<sup>th</sup> Period (10:20-11:00 am)

**Course Textbook:** <u>College Algebra</u>, 5th edition by Beecher, Penna, Bittinger, from Pearson. You will have access to a digital version of the textbook through MyLab Math in D2L Brightspace.

**Course Description:** College Algebra is an in-depth study and applications of polynomial, rational, exponential, and logarithmic functions, and system of equations using matrices.

### **Course requirements**

**HW:** There will be a homework assignment for each section we cover in class to be done online through D2L using MyLab Math. All due dates for homework and other online assignments such as quizzes will be given as material is covered in class.

**Quizzes/Exams:** There are four quizzes to be done 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 in-class quizzes. Inclass quizzes cannot be made-up or retaken. There will be four chapter-exams and a comprehensive final. These will be done 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% HW Average + 10% Quiz Average + 64% Exam Average + 16% Final Exam = Final Average

Grading Scale:

- 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:

Late homework can be submitted, but there is a 20% grade penalty on late assignments. Late work will only be accepted until the date of the corresponding exam. In class quizzes and tests must be taken on days scheduled unless you <u>notify me **in advance** of any issues</u>. There is no extra credit.

Attendance Policy: Attendance and participation is required.

| Student Learner Outcome  | Maps to Core Objective                     | Assessed via this<br>Assignment |
|--|--|---------------------------------|
| 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<br>(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 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 Dept. Chair at <u>lrichardson@com.edu</u>.

### **Productive Workplace**

Students are expected to bring all tools necessary for success to class every day. These tools include writing implements, notebook/notebook paper and an approved calculator. All other items (back packs, purses, bags, etc.) must be removed from your desk. Your cell phone is to be placed on SILENT and placed in your purse, backpack, or pocket. It is not to be out during class. *Having a cell phone out during class is an interruption to the learning environment for your classmates, yourself, and the instructor.* 

| Week/ Date | Торіс   | Section  | Due Date |
|------------|---|----------|----------|
| 1          | Introduction to Graphs                                  | 1.1      | 9/3      |
| 8/28       | Functions and Graphs                                    | 1.2      |          |
|            | Linear Functions, Equations of Lines                    | 1.3, 1.4 |          |
| 2          | 9/4 - Labor Day Holiday                                 |          | 9/10     |
| 9/4        | Linear Functions, Zeros                                 | 1.5      |          |
|            | Inc, Dec, Piecewise Functions                           | 2.1      |          |
|            | Quiz 1: Sections 1.1-1.5                                |          |          |
| 3          | The Algebra of Functions                                | 2.2      | 9/17     |
| 9/11       | The Composition of Functions                            | 2.3      |          |
|            | Transformations   | 2.5      |          |
| 4          | Review for Exam 1                                       |          | 9/24     |
| 9/18       | Exam 1: Chapter 1, 2                                    |          |          |
| 5          | 9/25 – Dickinson Student Holiday                        |          | 10/01    |
| 9/25       | Quadratic Functions                                     | 3.2      |          |
|            | Graphs of Quadratic Functions                           | 3.3      |          |
| 6          | Polynomial Functions                                    | 4.1      | 10/08    |
| 10/2       | Graphs of Polynomial Functions                          | 4.2      |          |
| 7          | 10/9 – Dickinson Student Holiday                        |          | 10/15    |
| 10/9       | Remainder, Factor Theorems                              | 4.3      |          |
|            | Rational Functions                                      | 4.5      |          |
| 8          | Poly Inequalities                                       | 4.6      | 10/22    |
| 10/16      | Quiz 2: Finding Zeros. Sections 3.2, 4.3, 4.5           |          |          |
|            | Review for Exam 2                                       |          |          |
| 9          | 10/23 Dickinson Student Holiday                         |          | 10/29    |
| 10/23      | Exam 2: Chapter 3, 4                                    |          | 10/25    |
|            | Inverse Functions                                       | 5.1      |          |
| 10         | Exponential Functions and Graphs                        | 5.2      | 11/05    |
| 10/30      | Logarithmic Functions and Graphs                        | 5.3      | 11,00    |
| 10,00      | Quiz 3: Graphing Techniques. Sections 5.1-5.3           | 0.0      |          |
| 11         | Properties of Logarithmic Functions                     | 5.4      | 11/12    |
| 11/6       | Solving Exponential Equations and Logarithmic Equations | 5.5      | 11/12    |
| 11/0       | Solving Exponential Equations and Eogariannie Equations | 5.5      |          |
| 12         | Applications and Models                                 | 5.6      | 11/26    |
| 11/13      | Review for Exam 3                                       | 510      | 11/20    |
| 11,10      | Exam 3: Chapter 5                                       |          |          |
| 11/20      | Dickinson Closed; Thanksgiving Break                    |          |          |
| 13         | Matrices and Systems of Equations                       | 6.1, 6.3 | 12/03    |
| 11/27      | Systems of Equations in Three Variables                 | 6.2      | 12,00    |
| 14         | Matrix Operations                                       | 6.4      | 12/10    |
| 12/4       | Quiz 4: Sections 6.1-6.4                                | 0. 1     | 14/10    |
| 1 2/ 7     | Review for Exam 4                                       |          |          |
|            | Exam 4 Chapter 6  |          |          |
| 15         | Review for Final Exam                                   |          | 12/13    |
| -          |   |          | 12/13    |
| 12/11      | Final Exam  |          | 12/13    |

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 <u>https://www.com.edu/student-services/docs/Student Handbook 2023-2024 v2.pdf</u>. *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 & 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 Kimberly Lachney at 409-933-8919 or <u>klachney@com.edu</u>. 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 1<sup>st</sup> 8-week session is October 11. The last date to withdraw from the 16-week session is November 28. The last date to withdraw for the 2<sup>nd</sup> 8-week session is December 7.

**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 <u>https://www.com.edu/community-resource-center/</u>. 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 <u>deanofstudents@com.edu</u> or <u>communityresources@com.edu</u>.