Collegeof the Mainland.

# Department of Mathematics and Computer Science 

Syllabus<br>Math 1314.034IN Spring 2024<br>College Algebra<br>Online Course

## Student hours and location:

Instructor: Sheri Aajul
Instructor E-mail: saajul@com.edu
Please include your course \& section in the subject line when emailing.
Virtual Student Hours: Four half-hour zoom links to student/office hours are in D2L Brightspace content but I also send out weekly emails are sent out at the start of office hours with links.. Students should feel free to ask both MATH0315 and MATH 1314 questions. My office hours are on Sunday from noon to 2 pm . I care about your mastery of course material and I am happy to help you. In addition, you are always welcome to send email.

Important Note: Internet is Required. You must opt in to inclusive access when registering for the course. If you opted out please go to the bookstore and opt in immediately.
This course uses Brightspace with integrated MyMathLab (MML) and COM email, so please check your email regularly. You will need access to the internet to gain access to course materials. Some devices like iPads/tablets and cellphones present problems with gaining access to quizzes/tests, so they are not acceptable devices for this class. If you do not have your own internet access, you should be able to get access on campus in the library.

## 1. Required Textbook/Materials:

The textbook used in this course is: College Algebra, by Beecher, Penna, Bittinger, fifth edition, published by Pearson. An electronic copy of the text is integrated into MyMathLab, so no hardcopy text is needed (unless you want one.) Please use the multimedia version of the textbook available in My Lab Math via the Multimedia Library Tab. Use the schedule found on this syllabus to determine the chapter/section to read. The multimedia textbook has embedded videos and worked examples so it is a huge help to master course material.

A scientific calculator is required and a graphing calculator is suggested for this course. A Texas Instruments TI-84 Plus is recommended as it will make your life much easier on chapter 6 material. Instructions on how to graph and perform matrix operations using a TI-84 calculator may be found in course content of our Blackboard course. On the other hand, you can use a TI-30. Please do not use an internet accessing calculator, a Computer Algebra System (CAS) calculator or any stored programs beyond what comes pre-packed in the calculator.

MyLab Math (Pearson) Please access My Lab Math via Brightspace. The link is on the homepage. A document in Course Administration walks you through using the My Lab Math course. Note that My Lab Math contains course text, multimedia, homework, quizzes, tests and grades.
2. Course Description: College Algebra is an in-depth study and applications of polynomial, rational, radical, exponential, and logarithmic functions, and systems of equations using matrices.

## 3. Course requirements:

## Homework Assignments

There is an assigned homework for each section to be completed online using MyMathLab. Most homework allows late submission with a $20 \%$ penalty, except if close to an exam or end of course, then there is no late submission option. Note that the penalty applies only to late problems and not necessarily to the entire assignment. Late close dates are as follows: 1.1-2.5 closes on 3/10/2024; $3.2-4.6$ closes on $3 / 31 / 2024 ; 5.1-5.6$ closes on $4 / 21 / 2024$; and 6.1-6.4 closes on $5 / 05 / 2024$. Please keep up with the course and do not procrastinate.

## Quizzes and Exams

There are four quizzes, four chapter exams and a comprehensive final exam. All of the quizzes and exams are to be done online using MyMathlab. Please see the schedule (below) to know when assessments are open.

You may use your approved calculator (which does not access the internet or contain other than original stored programs) on all assessments. I suggest that you create a formula/concept sheet which has three columns, one for the name of the formula or concept, one for the formula or concept, and one for an example of the formula or concept. Study this document regularly and commit the formulas and concepts to memory, but keep the formula sheet handy in case you need it to check it on an assessment. If you really get stuck, you may use your hardcopy textbook, homework, and class notes (including your formula sheet) on assessments. No other material or help is allowed. Do your own work.

Exams may only be taken once. Students must submit written work for each exam within 30 minutes of exam submission (only Word documents with photos, pdf documents or jpg files are accepted.) Written work is graded for submission, not correctness. There is a $5 \%$ penalty for nonsubmission or submission with incorrect format. Submission may be made via email or uploaded to D2L. Contact instructor with questions.

You can retake each quiz once (within its time frame) to improve your score; the higher score will be the one that counts. Quizzes are open (without late penalty) until their respective exam closes. There are no retakes on exams, but you can earn bonus points on each exam by posting to an associated discussion in Blackboard. The discussions are open during the time the material covered by the exam is open, with the closing date posted in the discussion. At most 4 percentage points of
extra credit is added to your final exam score (for a max score of 100\%) for submission of a course evaluation and sending instructor screen-print of your submission confirmation.

Quizzes have time limits of one hour; Exams 1-4 have time limits of two hours; and the final exam has a time limit of two and one half hours.

## 4. Determination of Course Grade/Detailed Grading Formula:

Grading Formula:
The course grade will be determined by the following formula: Final Average $=64 \%$ Chapter Exam Average + 16\% Final Exam + 10\% Homework Average + 10\% Quiz Average

The Final Exam score will replace the lowest Chapter Exam Score when it is larger.
Grading Scale:
Grade A: Final Average in [90, 100]
Grade B: Final Average in $[80,90)$
Grade C: Final Average in $[70,80)$
Grade D: Final Average in $[60,70)$
Grade F: Final Average in $[0,60$ )
5. Late Work, Make-Up, and Extra-Credit Policy: If you are unable to make a scheduled exam within the days specified in the course outline, you will be allowed to make up the exam provided that you notify the instructor before the end of the scheduled exam period and have a legitimate reason for not be able to take the exam.
6. Attendance Policy: You must $\log$ in and be active in MyMathLab at least three times each week. In addition to time spent in doing homework, taking quizzes and exams it will be necessary to study, using the course materials, plan to spend at least 4 hours per week to be successful in the class.
7. 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. (Faculty may add additional statement requiring monitoring and communication expectations via D2L or other LMS)

## 8. Table Mapping SLO's and Core Objectives

| Student Learner Outcomes | SLO assessed via <br> this assignment | SLO maps to <br> Core Objective | Core Objective assessed via <br> this assignment |
| :--- | :--- | :--- | :--- |
| 1.Demonstrate and apply <br> knowledge of properties <br> of functions, including <br> domain and range, <br> operations, compositions, | Exam 1 |  |  |


| and inverses. |  |  |  |
| :--- | :--- | :--- | :--- |
| 2.Recognize and apply <br> polynomial, rational, <br> exponential and <br> logarithmic functions and <br> solve related equations. | Exam 2, Exam 3 | Critical Thinking <br> Skills (CT) | 2 application problems on <br> Exam 3 |
| 3.Apply graphing <br> techniques. | Quiz 3 | Communication <br> Skills (CS) | Graphing question on Exam <br> 1 |
| 4.Evaluate all roots (zeros) <br> of higher degree <br> polynomials and rational <br> functions. | Quiz 2 |  |  |
| 5. Recognize, solve and |  |  |  |
| apply systems of linear |  |  |  |
| equations using matrices. |  |  |  |$\quad$ Exam 4 $\quad$| Empirical and |
| :--- |
| Quantitative |
| Skills (EQS) |

Only the Core Objectives Critical Thinking and Empirical \& Quantitative Skills will be assessed this semester. Communication Skills will not be assessed.
9. Academic Dishonesty: Do your own work on assessments. 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.

## 10. 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 the Department Chair, Leslie Richardson, at (409) 933-8329, lrichardson@com.edu.

## 11. Course Calendar and Pacing (includes both MATH035 and MATH1314 with MATH1314 on the right):

| Date Range | MATH0315 <br> Assignments/Assessments | Due Date | MATH1314 Assignments/Assessments |
| :---: | :---: | :--- | :--- |
| Week 1 | Orientation Homework <br> $1 / 16-1 / 21$ | Rules of Exponents (skip scientific <br> notation) | $1 / 21 / 2024$ |


|  | 1.5 Operations with Variables; Grouping Symbols <br> 1.6 Evaluating Expressions/Formulas <br> 2.1 First Degree Equations in One Variable <br> 2.4 Solving Word Problems <br> Quiz A (Sections 1.5, 1.6 \& 2.1) |  |  |
| :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Week } 2 \\ 1 / 22-1 / 28 \end{gathered}$ | 2.6 Linear Inequalities <br> 2.3 Absolute Value Equations <br> 2.8 Absolute Value Inequalities <br> Test 1 (1.4, 1.5, 1.6, 2.1, -2.3, 2.4, 2.6, \& 2.8) <br> 3.1 Graphing Linear Equations with Two Unknowns | 1/28/2024 | Students work on 0315 |
|  |  | $\begin{aligned} & 1 / 31 / 2024 \\ & \text { Census Day } \end{aligned}$ |  |
| $\begin{gathered} \text { Week } 3 \\ 1 / 29-2 / 04 \end{gathered}$ | 3.2 Slope of a Line <br> 3.3 Graphs and the Equations of a Line <br> Quiz B (Sections 3.1, 3.2 \& 3.3)- <br> 4.1 Systems of Linear Equations in 2 Variables <br> 4.3 Applications of Systems of Equations | 2/4/2024 | Students work on 0315 |
| $\begin{gathered} \text { Week } 4 \\ 2 / 05-2 / 11 \end{gathered}$ | Test 2 (3.1, 3.2, 3.3, 4.1 \& 4.3) <br> 5.1 Polynomial <br> 5.4 GCF, Factoring by Grouping <br> 5.5 Factoring Trinomials <br> Quiz C (Section 5.4, 5.5 \& 5.6) <br> 5.6 Special Cases of Factoring <br> 5.8 Solving Equations by Factoring | 2/11/2024 | Students work on 0315 |
| $\begin{gathered} \text { Week } 5 \\ 2 / 12-2 / 18 \end{gathered}$ | Test 3 (5.1, 5.4, 5.5. 5.6 \& 5.8) <br> 5.3 Synthetic Division <br> 6.1 Rational Expressions: Simplifying, Multiplying, Dividing <br> 6.2 Add/Subtract Rational Expressions <br> 7.6 Complex Numbers <br> 3.6 Graphing Functions from Equations <br> Quiz E (Sections 7.6 \& 3.6) | 2/18/2024 | Orientation Homework |
| $\begin{gathered} \text { Week } 6 \\ 2 / 19-2 / 25 \end{gathered}$ | Test 4 (5.3, 6.1, 6.2, 3.6 \& 7.6) | 2/25/2024 | 1.1 Introduction to Graphs <br> 1.2 Functions and Graphs <br> 1.3/1.4 Linear Functions and Equations <br> 1.5 Zeros of Linear Functions |


| $\begin{gathered} \text { Week } 7 \\ 2 / 26-3 / 03 \end{gathered}$ | Students work on 1314; Review for Final Exam Homework (open early and closes 4/28/2024) | 3/3/2024 | Quiz 1: Sections 1.1-1.5 <br> 2.1 Increasing/Decreasing Piecewise Functions <br> 2.2 Algebra of Functions <br> 2.3 Composition of Functions <br> 2.5 Transformations of Functions (opens early but due 3/10) |
| :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Week } 8 \\ 3 / 04-3 / 10 \end{gathered}$ | Students work on 1314; Review for Final Exam Homework (open early and closes 4/28/2024) | 3/10/2024 | Exam 1 (Chapters $1 \& 2$, excluding 2.4) <br> 3.2 Quadratic Functions <br> 3.3 Graphs of Quadratic Functions |
| $\begin{gathered} \text { Week } 9 \\ 3 / 11-3 / 17 \end{gathered}$ |  | Spring Break |  |
| $\begin{gathered} \text { Week } 10 \\ 3 / 18-3 / 24 \end{gathered}$ | Students work on 1314; Review for Final Exam Homework (open early and closes 4/28/2024) | 3/24/2024 | 4.1 Polynomial Functions <br> 4.2 Graphs of Polynomial Functions (see TI-84 handout on D2L BrightSpace) <br> 4.3 Remainder, Factor Theorems <br> 4.5 Rational Functions |
| $\begin{gathered} \text { Week } 11 \\ 3 / 25-3 / 31 \end{gathered}$ | Students work on 1314; Review for Final Exam Homework (open early and closes 4/28/2024) | $\begin{aligned} & 3 / 29-3 / 31 \text { Holiday } \\ & 4 / 1 / 2024 \end{aligned}$ | Quiz 2 Finding Zeros (over 3.2, 4.3 \& 4.5) <br> 4.6 Inequalities <br> Exam 2 (Chapters 3 and 4) |
| Week 12 $4 / 1-4 / 7$ | Students work on 1314; Review for Final Exam Homework (open early and closes 4/28/2024) | 4/7/2024 | 5.1 Inverse Functions <br> 5.2 Exponential Functions <br> 5.3 Logarithmic Functions <br> Quiz 3 Graphing Techniques (over <br> 5.1-5.3) |
| $\begin{gathered} \text { Week } 13 \\ 4 / 8-4 / 14 \end{gathered}$ | Students work on 1314; Review for Final Exam Homework (open early and closes 4/28/2024) | 4/14/2024 | 5.4 Properties of Logarithmic Functions 5.5 Exponential, Logarithmic Equations 5.6 Modeling with Exponential and Logarithmic Functions |
| $\begin{gathered} \text { Week } 14 \\ 4 / 15-4 / 21 \end{gathered}$ | Review for Final Exam Homework (open early and closes 4/28/2024) | 4/21/2024 | Exam 3 (Ch. 5) <br> 6.1/6.3 Solving Linear Systems 2-D general as well as via Gaussian/GaussJordan Elimination (see D2L material on TI-84 calculator) |
| $\begin{gathered} \text { Week } 15 \\ 4 / 22-4 / 28 \end{gathered}$ | Review for Final Exam Homework | $\begin{aligned} & \text { 5/1/2024 W-Day } \\ & \text { 4/28/2024 } \end{aligned}$ | 6.2 Solving Linear Systems 3-D 6.4 Matrix Operations Quiz 4 (over 6.1-6.4) |
| $\begin{gathered} \text { Week } 16 \\ 4 / 29-5 / 05 \end{gathered}$ | Comprehensive Final Exam opens early | 5/05/2024 | Exam 4 (Chapter 6) Review for Final Exam Homework Final Exam opens early on Sunday |


| Week 17 | Comprehensive Final Exam closes on <br> Tuesday | $0315: 5 / 07 / 2024$ <br> 5/06-5/08 <br> 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_2023-2024_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 \& 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 klachney@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 $1^{\text {st }} 8$-week session is February 28 . The last date to withdraw from the 16 -week session is April 22 . The last date to withdraw for the $2^{\text {nd }} 8$-week session is May 1. The last date to withdraw for spring mini session is May 29.

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.

