# COM <br> College of the Mainland. <br> Department of Mathematics and Computer Science 

# Syllabus <br> Math 0320.034IN Spring 2022 <br> Intermediate Algebra 

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Professor: Sheri Aajul
E-mail: saajul@com.edu
Please include your course \& section in the subject line when emailing.
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Virtual Student Hours: Student/Office hours are available online while course content is being covered on Sunday from 7:00-8:00 pm. Two half-hour zoom links to student/office hours is in Blackboard content. Students should feel free to ask MATH 1314 questions during this time frame as well as MATH 0320 questions.

Important Note: Internet is required as is regular reading of College of the Mainland email. This course uses Blackboard and COM email in addition to MyMathLab (MML), so please check them regularly. You will need access to the internet to gain access to course materials using Blackboard, COM email, and MyMathLab (MML) software. 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 can get access on campus in the Innovations Computer Lab, TVB 1324, the Library and the Tutoring Center, TVB 1310.

## 1. Required Textbook/Materials

The textbook used in this course is: Intermediate Algebra, $8^{\text {th }}$ edition, by Tobey, Slater, Blair and Crawford, published by Pearson. An electronic copy of the text is integrated into MyMathLab, so no hardcopy text is needed (unless you want one.) On the other hand, you will need to buy a MyMathLab access code (but you can use free access for two weeks if waiting on financial aid.)

A graphing calculator is needed for this course. A Texas Instruments TI 83 Plus or TI 84 Plus is recommended. A TI 89 or higher cannot be used in this course, nor any internet accessing calculator. Do not use stored programs beyond what comes pre-packed in the calculator.

## MyMathLab (Pearson)

Please access MyMathLab via Blackboard (in the content section of our course). The email account used to register for MyMathLab must be your COM email. Note: MyMathLab offer a two week grace period for free use if your funds are not immediately available, and you can access this option when you register for our course in MyMathLab. Our MyMathLab course ID is aajul45981, and our MyMathLab course name is Math-0320-034IN-Sp22 Intermediate Algebra

## 2. Course Description

This course is designed to develop skills and understanding in the following areas: relations
and functions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a special emphasis on linear and quadratic expressions and equations. This course does not transfer.

## 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. Late close dates are as follows: All Exam 1 homework closes on 2/6/22; All Exam 2 homework closes on 2/20/22; All Exam 3 homework closes on 3/06/22; and all Exam 4 homework closes on 4/24/22. Please keep up with the course and do not procrastinate.

## Quizzes and Exams

There are six quizzes, four chapter exams and a comprehensive final exam. All of the quizzes and exams are to be done online using MyMathlab.
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 a problem on an assessment. If you really get stuck, you may use your hardcopy textbook, and homework and class notes on assessments. No other material or help is allowed. Do your own work.

You can retake each quiz just once (with its time frame) to improve your score; the higher score will be the one that counts. There are no retakes on exams. Quizzes have time limits of two hours; exam 1-4 as well as the final exam have time limits of two and one half hours. At most 4 percentage points of extra credit will be added to your final exam score (for a max score of $100 \%$ ) for submitting a course evaluation.

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

## Grading Formula:

The course grade will be determined by the following formula:

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\begin{aligned}
\text { Final Average }= & \mathbf{6 4 \%} \text { Chapter Exam Average }+\mathbf{1 6 \%} \text { Final Exam } \\
& +\mathbf{1 0 \%} \text { Homework Average }+\mathbf{1 0 \%} \text { Quiz Average }
\end{aligned}
$$

## The Final Exam score will replace the lowest Chapter Exam Score when it is larger.

## 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)

## 5. Make-up policy

If you are unable to make a scheduled exam within 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 each week, preferable at least three times. In addition to time spent in doing homework, taking quizzes and exams it will be necessary to study, using the course materials. Please 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. I will make every effort to respond to your email within 24 hours of receiving it.

## 8. Student Learning Outcomes

Upon successful completion of M0320, 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, polynomial, radical, and rational equations.
5. Identify and solve absolute value and linear inequalities.
6. Model, interpret and justify mathematical ideas and concepts using multiple representations.
7. Connect and use multiple strands of mathematics in situations and problems, as well as to the study of other disciplines.

## 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

NOTE: The pace of the first three exams is fast to allow students to focus more on MATH1314 which starts during week 6 . The course ends in the $14^{\text {th }}$ week of the semester to allow students to focus on the completion of MATH1314.

| Date Range | Assignments/Assessments | Due Date |
| :---: | :---: | :---: |
| $\begin{gathered} \text { Week } 1 \\ 1 / 18-1 / 23 \end{gathered}$ | Orientation Homework <br> 2.3 Absolute Value Equations <br> 2.6 Linear Inequalities <br> 2.8 Absolute Value Inequalities <br> Quiz A (Sections 2.6 \& 2.8) <br> 3.1 Graphing Linear Equations with Two Unknowns | 1/23/2022 |
| $\begin{gathered} \text { Week } 2 \\ 1 / 24-1 / 30 \end{gathered}$ | 3.2 Slope of a Line <br> 3.3 Graphs and the Equations of a Line <br> 3.5 Concept of a Function <br> 3.6 Graphing Functions from Equations <br> Quiz B (Sections 3.5 \& 3.6) | 1/30/2022 |
|  |  | $2 / 2 / 2022$ <br> Census Day |
| $\begin{gathered} \text { Week } 3 \\ 1 / 31-2 / 06 \end{gathered}$ | Test 1 (2.3, 2.6 2.8, 3.2, 3.3, 3.5, 3.6) <br> 4.1 Systems of Linear Equations in 2 <br> Variables <br> 4.3 Applications of Systems of Equations <br> Quiz C (Section 4.3) <br> 5.4 GCF, Factoring by Grouping | 2/6/2022 |
| $\begin{gathered} \text { Week } 4 \\ 2 / 07-2 / 13 \end{gathered}$ | 5.5 Factoring Trinomials <br> 5.6 Special Cases of Factoring <br> 5.8 Solving Equations by Factoring <br> Quiz D (Sections 5.5, 5.6 \& 5.8) | 2/13/2022 |
| $\begin{gathered} \text { Week } 5 \\ 2 / 14-2 / 20 \end{gathered}$ | Test 2 (4.1, 4.3, 5.4, 5.5. 5.6 \& 5.8) <br> 5.2 Dividing Polynomials <br> 5.3 Synthetic Division <br> 6.1 Rational Expressions: Simplifying, <br> Multiplying, Dividing | 2/20/2022 |
| Week 6 $2 / 21-2 / 27$ | 6.2 Add/Subtract Rational Expressions <br> 6.3 Complex Rational Expressions <br> 6.4 Rational Equations <br> Quiz E (Sections 6.1 \& 6.4) <br> MATH1314 Begins this week - check the MATH1314 syllabus for the MML link | 2/27/2022 |
| $\begin{gathered} \text { Week } 7 \\ 2 / 28-3 / 6 \end{gathered}$ | Test 3 (5.2, 5.3, 6.1, 6.2, 6.3 \& 6.4) | 3/6/2022 |
| Week 8 3/7-3/13 | 7.6 Complex Numbers Quiz F (Section 7.6) | 3/13/2022 |


| Week 9 <br> $3 / 14-3 / 20$ | Spring Break |  |
| :---: | :--- | :--- |
| Week 10 <br> $3 / 21-3 / 27$ | 8.1 Quadratic Equations | $3 / 27 / 2022$ |
| Week 11 <br> $3 / 28-4 / 3$ | 8.2 Quadratic Formula | $4 / 3 / 2022$ |
| Week 12 | 7.5 Radical Equations | $4 / 10 / 2022$ |
| $4 / 4-4 / 10$ |  | 4/15-4/17 Holiday <br> $4 / 18 / 2022 ~(T e s t ~ 4 ~$ <br> due date) |
| Week 13 <br> $4 / 11-4 / 17$ | 5.7 Factor Polynomial Completely | $4 / 24 / 2022$ |
| Week 14 | Test 4 (5.7, 7.5, 7.6, 8.1, 8.2) |  |
| $4 / 18-4 / 24$ | Comprehensive Final Exam opens early | 4/25/2022 W-Day |
|  |  | $5 / 1 / 2022$ |
| Week 15 | Comprehensive Final Exam closes this <br> week |  |
| $4 / 25-5 / 1$ |  |  |
| Week 16 |  |  |
| $5 / 2-5 / 8$ |  |  |

## 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 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 $\mathrm{F}_{\mathrm{N}}$ 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.

## Side-By-Side MATH $\mathbf{0 3 2 0}$ - MATH 1314 Course Calendars

| Date Range | MATH0320 <br> Assignments/Assessments | Due Date | MATH1314 Assignments/Assessments |
| :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Week } 1 \\ 1 / 18-1 / 23 \end{gathered}$ | Orientation Homework <br> 2.3 Absolute Value Equations <br> 2.6 Linear Inequalities <br> 2.8 Absolute Value Inequalities <br> Quiz A (Sections 2.6 \& 2.8) <br> 3.1 Graphing Linear Equations with Two Unknowns | 1/23/2022 | Students concentrate on MATH0320 |
| $\begin{gathered} \text { Week } 2 \\ 1 / 24-1 / 30 \end{gathered}$ | 3.2 Slope of a Line <br> 3.3 Graphs and the Equations of a Line <br> 3.5 Concept of a Function <br> 3.6 Graphing Functions from Equations <br> Quiz B (Sections 3.5 \& 3.6) | 1/30/2022 | Students concentrate on MATH0320 |


|  |  | $2 / 2 / 2022$ <br> Census Day |  |
| :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Week } 3 \\ 1 / 31-2 / 06 \end{gathered}$ | Test 1 (2.3, 2.6 2.8, 3.2, 3.3, 3.5, 3.6) <br> 4.1 Systems of Linear Equations in 2 Variables <br> 4.3 Applications of Systems of Equations <br> Quiz C (Section 4.3) <br> 5.4 GCF, Factoring by Grouping | 2/6/2022 | Students concentrate on MATH0320 |
| $\begin{gathered} \text { Week } 4 \\ 2 / 07-2 / 13 \end{gathered}$ | 5.5 Factoring Trinomials 5.6 Special Cases of Factoring 5.8 Solving Equations by Factoring Quiz D (Sections 5.5, 5.6 \& 5.8) | 2/13/2022 | Students concentrate on MATH0320 |
| $\begin{gathered} \text { Week } 5 \\ 2 / 14-2 / 20 \end{gathered}$ | Test 2 (4.1, 4.3, 5.4, 5.5. 5.6 \& 5.8) <br> 5.2 Dividing Polynomials <br> 5.3 Synthetic Division <br> 6.1 Rational Expressions: Simplifying, Multiplying, Dividing | 2/20/2022 | Students concentrate on MATH0320 |
| $\begin{gathered} \text { Week } 6 \\ 2 / 21-2 / 27 \end{gathered}$ | 6.2 Add/Subtract Rational Expressions <br> 6.3 Complex Rational Expressions <br> 6.4 Rational Equations <br> Quiz E (Sections 6.1 \& 6.4) <br> MATH1314 Begins this week - check the MATH1314 syllabus for the MML link | 2/27/2022 | Orientation Homework <br> 1.1 Introduction to Graphs <br> 1.2 Functions and Graphs |
| $\begin{gathered} \text { Week } 7 \\ 2 / 28-3 / 6 \end{gathered}$ | Test 3 (5.2, 5.3, 6.1, 6.2, 6.3 \& 6.4) | 3/6/2022 | 1.3 Linear Functions <br> 1.4 Equations of Lines 1.5 Zeros of Linear Functions Quiz 1: Sections 1.1-1.5 |
| Week 8 $3 / 7-3 / 13$ | 7.6 Complex Numbers <br> Quiz F (Section 7.6) | 3/13/2022 | 2.1 Increasing/Decreasing Piecewise Functions <br> 2.2 Algebra of Functions <br> 2.3 Composition of Functions <br> 2.5 Transformations of Functions Exam I opens early |
| $\begin{gathered} \hline \text { Week } 9 \\ 3 / 14-3 / 20 \end{gathered}$ | Spring Break |  | Spring Break |
| $\begin{gathered} \text { Week } 10 \\ 3 / 21-3 / 27 \end{gathered}$ | 8.1 Quadratic Equations | 3/27/2022 | Exam 1 (Chapters $1 \& 2$, excluding 2.4) <br> 3.2 Quadratic Functions <br> 3.3 Graphs of Quadratic Functions <br> 4.1 Polynomial Functions <br> 4.2 Graphs of Polynomial Functions |
| $\begin{gathered} \text { Week } 11 \\ 3 / 28-4 / 3 \end{gathered}$ | 8.2 Quadratic Formula | 4/3/2022 | 4.2 Graphs of Polynomial Functions <br> 4.3 Remainder, Factor Theorems <br> 4.5 Rational Functions <br> Quiz 2 Finding Zeros (over 3.2, 4.3, 4.5) |


|  |  |  | 4.6 Inequalities |
| :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Week } 12 \\ 4 / 4-4 / 10 \end{gathered}$ | 7.5 Radical Equations | 4/10/2022 | Exam 2 (Chapters 3 and 4) <br> 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) |
| $\begin{aligned} & \text { Week } 13 \\ & 4 / 11-4 / 17 \end{aligned}$ | 5.7 Factor Polynomial Completely | 4/15-4/17 Holiday $4 / 18 / 2022$ is due date for assignments | 5.4 Properties of Logarithmic Functions 5.5 Exponential, Logarithmic Equations 5.6 Modeling with Exponential and Logarithmic Functions |
| $\begin{gathered} \text { Week } 14 \\ 4 / 18-4 / 24 \end{gathered}$ | Test 4 (5.7, 7.5, 7.6, 8.1, 8.2) Comprehensive Final Exam opens early | 4/24/2022 | Exam 3 (Chapter 5) <br> 6.1 Solving Linear Systems 2-D <br> 6.3 Matrices and Systems of Linear <br> Equations <br> 6.2 Solving Linear Systems 3-D |
|  |  | 4/25/2022 W-Day |  |
| $\begin{gathered} \text { Week } 15 \\ 1 / 25 \end{gathered}$ | Comprehensive Final Exam closes this week | 5/1/2022 | 6.4 Matrix Operations <br> Quiz 4 (over 6.1-6.4) <br> Exam 4 (Chapter 6) <br> Final Exam opens on Sunday, 5/1/2022 |
| Week 16 $5 / 2-5 / 8$ |  |  | Review for Final Exam Homework (due 5/8/2022) <br> Final Exam (due Tuesday, 5/10/22) |

