



MATH 103: INTERMEDIATE ALGEBRA
FALL 2018

Instructor Information

- Ms. Kelsey Friesen
- Office is FEM 1G (far corner of the Math Center)
- Office Hours: Monday 8-8:50 am, Tuesday 10-10:50 am & 12-12:50 pm, Wednesday 8-8:50 am, Thursday 12-12:50 pm. These are hours that I am guaranteed to be in my office. If these times do not work for you, talk with me before/after class or send me an email and we can easily arrange to meet at another time.
- I prefer that when you need to send me a message you do so through the messaging system in Canvas. If that is not available, you can send an email to kelsey.friesen@reedleycollege.edu from your scccd student email. When sending an email please include your full name and which class you are in. You can also call my office phone at 559-638-0300 x 3799.

Course Information

Welcome to Math 103, intermediate algebra! Our section number is 59655. We meet in FEM 3 daily, Monday through Friday, from 11:00 – 11:50 am.

Course Description

This course is designed to provide students with a strong foundation in algebra, graphing, and problem-solving skills. This course will cover many algebraic concepts including: equations and inequalities in two variables, rational exponents and roots, quadratic functions, exponential and logarithmic functions, and conic sections.

- Advisories: Eligibility for English 126
- Prerequisite(s): Math 201 or equivalent
- Credits: 5

Course Materials

Required: Access to OpenStax *Intermediate Algebra*. This is a FREE textbook! All of the reading pages are in the modules in Canvas. You can also view it online at <https://openstax.org/details/books/intermediate-algebra> , and can also download a PDF copy. If you would like a hard copy of the book you can order one from Amazon for about \$50.

Required: Scientific calculator. I recommend the TI-30 X IIS. This calculator may be used in other classes such as chemistry or statistics and only costs around \$12. You may be able to check out a calculator from the library if they have some in stock for FREE. I have a set that I can bring with me on exam days for you to use. When

you are working at home and need one, there is an amazing online scientific calculator at <https://www.desmos.com/>.

Student Learning Outcomes

Upon completion of this course, students will be able to:

- simplify and/or factor mathematical expressions into forms more conducive to analysis
- solve equations introduced in Intermediate Algebra (linear, quadratic, exponential, logarithmic, and radical)
- graph functions and relations introduced in Intermediate Algebra (linear, quadratic, exponential, logarithmic, and radical)
- apply Intermediate Algebra topics (linear, quadratic, exponential, logarithmic, and radical functions) to solve real-life problems

Course Objectives

In the process of completing this course, students will:

- use the properties of lines and linear inequalities, and apply operations on functions
- simplify radical and complex expressions and perform operations on them
- solve quadratic equations using various techniques including factoring and quadratic formula, and graph parabolas
- apply the properties of exponents and logarithmic functions to change the base of a logarithm
- manipulate and graph equations of conic sections
- optional Topics (if time permits): generalize arithmetic and geometric sequences and find the k th term of a binomial expansion.

Lecture Content

- Equations and Inequalities in Two Variables
 1. Slope of a line
 2. The equation of a line
 3. Linear inequalities in two variables
 4. Operations on functions
- Rational Exponents and Roots
 1. Rational exponents
 2. Simplified form for radicals
 3. Arithmetic operations on radical expressions
 4. Equations with radicals
 5. Complex numbers
- Quadratic Functions
 1. Quadratic equations

- 2. Graphing parabolas
- Exponential and Logarithmic Functions
 1. Exponential Functions
 2. The Inverse of a function
 3. Logarithms and their properties
 4. Exponential and logarithmic equations and change of base
- Conic Sections
 1. Circle
 2. Ellipses and Hyperbolas
- Optional Topics (if time permits)
 1. Quadratic inequalities
 2. Second-degree inequalities and non-linear systems
 3. Arithmetic and geometric sequences
 4. Series
 5. Binomial expansion

Grading

You can see your assignment grades and overall class grade anytime in Canvas. Your overall class percentage is broken down as follows:

- Homework Assignments / In Class Assignments 30%
- Regular Exams and Final Exam 70%

Example of class grade calculation: Let's say you have an 85% grade in homework / in class assignments and a 76% grade in exams. Then your overall class percentage would be

$$.30*85 + .70*76 = 25.5 + 53.2 = 78.7$$

You would have a 78.7% as your overall class grade, and would thus have a C in the class. See the below grade distribution.

Letter Grade Distribution:

- 89.5 - 100% A
- 79.5 - 89.4% B
- 69.5 - 79.4% C
- 59.5 - 69.4% D
- 0 - 59.4% F

Attendance

To be as successful as possible, you should be at all class meetings. Because of the importance of attendance, if a student misses 10 days of class before the end of the ninth week he or she may be dropped from the class. To motivate you to be on time at the beginning of class, every two tardies will count as an absence. Leaving early from class will count as an absence.

Homework

All homework assignment problems will be given from the OpenStax *Intermediate Algebra* book. To know what homework is due and when, all you have to do is look at the assignments page in Canvas. The problems assigned each week will be due the following Wednesday in class. For example, any assignments that are created the week of August 13th would be due Wednesday August 22nd. The purpose of homework is to help you better understand the concepts we discuss in class. It gives you practice on the types of problems you will have on the exams.

Please complete your homework in pencil on standard 8 inch by 11.5 inch paper. If you have more than one page, please staple them together. When I am grading, I look for completeness and work shown. No credit will be given for an assignment with just answers.

Late Homework

Homework must be turned in by 5:00 pm the Wednesday that it is due. Any time after this, the assignment is considered late. You can still turn in an assignment late, but you will only receive 60% of the credit that you would have gotten.

Extra Credit

There will be a few extra credit opportunities sprinkled throughout the semester, so take advantage of them! Extra credit opportunities will be made clear and available to everyone in the class. To be fair, no individual extra credit assignments will be given (so don't count on that at the end of the semester).

In Class Assignments

In addition to homework, you will have occasional in class assignments. Sometimes these will be done individually and other times in groups. If you are absent when we have an in class assignment you will receive a grade of 0 that **cannot be made up**.

Exams

There will be 3 regular chapter exams throughout the semester – exam 1 on chapters 3 and 6, exam 2 on chapters 8 and 9, and exam 3 on chapters 10 and 11. The content we are able to cover from chapter 12 will be handled on the final. All the exams will be free response (no multiple choice). Each question will be graded on work shown and correctness - partial credit is possible on most questions. All exams will have equal weight in your overall class grade percentage. **No make up exams will be given for any reason** (see final exam portion for more information). If you know you won't be able to make the exam ahead of time then we can schedule for you to take it ahead of time, that is no problem.

For each exam, you are able to bring a 3 by 5 inch card of notes, both sides OK with whatever you like written on it. You just have to be able to read it without any special assistance (such as a magnifying glass).

Final Exam

There will be a mandatory final exam at the end of the semester. It will be cumulative (meaning on all material covered throughout the semester) and free response, with partial credit available as with the regular exams. Keep your chapter exams and use them as study guides for the final. Because there are no make-up exams, if a student misses an exam then the final exam score will go in for that grade. This replacement will be done only one time, so if you miss another exam that will receive a 0 that cannot be made up. If a student has not missed any exams, then the final exam will go in for the lowest chapter exam given the final score is higher. **The final exam for this class will take place on Wednesday December 12th from 11:00 – 12:50 pm in our normal room.**

Technology

As a student of SCCCD, you are given a free student email account. Make sure you are able to login to this account and check it on a regular basis (at least once a day). You can also set it up through your smart phone if you have one and set up email alerts so that you never miss anything important. For example - you wouldn't want to come to campus when your class has been canceled. Your student email is the official way your instructors communicate with you outside of class. As a student in the district, you also have a Canvas account. This is what I will use to make announcements, keep track of grades, ect. Make sure you have access and sign in on a regular basis.

Resources

- Your instructor
- Your fellow students
- Your textbook
- FREE tutoring in the Math Center located in FEM 1. Hours are Monday-Thursday 8 am to 4 pm and Fridays 8 am to 12 pm.
- FREE tutoring in the Learning Center (aka tutorial center) located in the library.
- Online resources: Khan Academy, YouTube, any other websites you find that are helpful (please share with the rest of the class).

College Policies

Accommodations for Students with Disabilities

If you have a verified need for an academic accommodation or materials in alternate media (ie: Braille, large print, electronic text, etc.) per the American With Disabilities Act or Section 504 of the Rehabilitation act please contact me as soon as possible.

Academic Dishonesty

``Students at Reedley College are entitled to the best education that the college can make available to them, and they, their instructors, and their fellow students share the responsibility to ensure that this education is

honestly attained. Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences" (Reedley College Catalog pg 49).

Cheating

``Cheating is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another's work, supplying one's work to another, giving or receiving copies of examinations without an instructor's permission, using or displaying notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely" (Reedley College Catalog pg 49).

Disruptive Students

Disruptions will not be tolerated. It is my goal to provide the most comfortable and welcoming environment in our class. Cell phones are only allowed in class when taking a picture of something on the board, researching a topic in class, using them for activities during class (such as Kahoot!). ``Reedley College's Student Code of Conduct Policy (Board Policy 5520 and Educational Code 76032) authorizes an instructor to remove a disruptive student from his or her class for the day of the removal and the next class meeting. The instructor shall immediately report the removal to the Vice President of Student Services. During the period of removal, a student shall not be returned to the class from which he or she was removed without the concurrence of the instructor of the class" (Reedley College Catalog pg 49).

Student Rights

``Student rights are protected by federal and state laws, and by policies established by the trustees of the State Center Community College District. It is therefore essential for the protection of students' rights that procedures be established and followed which would identify violations of student conduct standards and the resolutions of such violations. Students have a right to an oral or written notice (reasons for disciplinary action), an opportunity for a review, and a decision given orally or in writing. For more information contact the Vice President of Student Services' office. (Board Policy 5520, Administrative Regulation 5520)" (Reedley College Catalog pg 49).

Important Dates

- Monday August 13th : Start of the semester
- Friday August 24th : Last day to drop a full term (18 week) course for a full refund
- Sunday September 2nd : Last day to drop the class and NOT receive a W (withdraw). It is as if you were never in the class.
- Monday September 3rd : Labor Day Holiday, no classes, campus is cancelled
- Friday October 12th : Last day to drop a full term class and receive a W instead of a letter grade. If still enrolled after this date you are dedicated to getting a letter grade for the class.

- Monday November 12th : Veterans Day Holiday, no classes, campus open
- Thursday and Friday November 22-23 : Thanksgiving Holiday, no classes, campus closed
- Monday – Thursday December 10 – 14: Final exam week. **Our final is Wednesday December 12 from 11:00 – 12:50 pm in our normal room.**

*** This syllabus is subject to change at the discretion of the instructor.