Syllabus
Math 1233-202: College Algebra
Spring 2025

Section Information

Instructor

Instructor: Dr. Sarah Cobb (she/her)
Office: Pierce Hall 120
Office phone: (940) 397-4441
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Drop-in Office hours:

- Monday: 2:00-2:50 PM
- Tuesday: 10:30-11:50 AM
- Thursday: 10:00—11:00 AM and 1:30-3:00 PM

Office hours also available by appointment

Schedule

Class meetings: MWF, 10:00—10:50 AM, Dillard 177

Unit Exams: February 26, April 9, May 7 during class time

Final Exam: Wednesday, December 11, 1:00—3:00 PM, location to be announced

Catalog information

Course Description

In-depth study of polynomials, rational, radical, exponential, and logarithmic functions, including applications for these functions and methods for solving related equations and inequalities. Additional topics, such as systems of linear equations, may be included. (This course is designed for students planning to take additional mathematics.)

Prerequisites

Prerequisite(s): Math TSIA2 Assessment score of 950, Math TSIA2 Diagnostic score of 6, MATH 1003 with a grade of C or better, math TSI Assessment score of 350, math THEA score of 270, math Accuplacer score of 90, or satisfactory score on placement exam.

Course Materials

Open Educational Resources

All instructional materials for this course are provided at no cost to students thanks to a grant from the Texas Higher Education Coordinating Board promoting the development of open educational resources for use in Texas colleges and universities.

Videos and Guided Notebook

The primary written resource for this class is the College Algebra Guided Notebook by Sarah Cobb and Marcos Lopez, with the accompanying video lectures. The Guided Notebook will be distributed on paper in class and is available digitally through D2L.

Additional materials needed will be posted or linked through D2L.

Online Homework System

Homework for this class will be completed through the MyOpenMath system, accessed at www.myopenmath.com. You can access MyOpenMath on your own computer or in campus labs.

Note: MyOpenMath does not comply with TX-RAMP cybersecurity certification requirements. MSU cannot guarantee that information entered on MyOpenMath will be secure. The only information provided to MyOpenMath is your name and email address. Use of this system is not mandatory; students with privacy concerns can contact Dr. Cobb about alternate arrangements for completing homework assignments.

Instructions for setting up a MyOpenMath account will be available in D2L.

Calculators

You will need a scientific calculator for this class that will compute radicals, exponents, and logarithms. A graphing calculator is allowed, but not required. Make sure that you have a calculator, know how to use it, and make a habit of bringing it to class daily.

If you already have a calculator, you do not need to get a new one. If you plan to purchase one, I recommend either the TI-30X series (scientific) or the TI-83+ (graphing).

Active Learning

Philosophy

This course is built around active learning in the classroom. This means that you will be engaged in reasoning, problem solving, and mathematical communication throughout the class, rather than listening to a lecture. Studies have consistently shown that students benefit from active learning practices (a few links are provided below). I will spend a very small amount of time talking to the whole class and a lot more time working with small groups.

Covering a typical content section

Before class, you will watch a video (linked from D2L) and fill out an associated guided note sheet. Make sure you bring the notes to class as a reference—it will help you work effectively in class, as well as counting towards your participation and preparation grade.

In class, you will work with 2-3 classmates on a series of exercises designed to deepen your understanding of the concepts. Groups will be assigned and will change every 2-3 weeks.

The exercises are divided into a basic set and a challenge set. Try to finish the basic set and spend time on at least one interesting challenge question, but don't worry too much about working fast. It's better to do fewer problems and understand them thoroughly.

After class, there will be an online homework set for additional practice on the concept. It will be due a week or so after the class meeting for the section.

Three unit tests and one cumulative final will provide the largest part of your grade for the course. The problems on these exams will be similar to class and homework problems.

Guidelines for Group Work

- ***Treat every member of your group politely and respectfully at all times.**
- Each group should use one pencil/marker/piece of chalk— one person should write at a time.
- Everyone in the group should participate. One good way to do this is to choose a scribe for each problem or part of a problem and pass the pencil to someone else when it's done.
- You can use your guided notes, but no other resources. The questions are structured so that you should be able to make progress on them with the information in the notes.
- Make sure everyone in the group understands each step.
- If you have a question, ask your group members first.
- If someone asks a question, pause to answer it carefully— this helps the person (or people) with the question and also the person (or people) explaining.
- If no one in your group knows the answer, ask the instructor.
- Work the first set of problems in order, then move on to the additional problems in any order.

Some Resources on the Value of Active Learning

Conference Board of the Mathematical Sciences Statement on Active Learning

What does Active Learning Mean for Mathematics?, Notices of the American Mathematical Society.

Active Learning Increases Student Performance in Science, Engineering, and Mathematics, Psychological and Cognitive Sciences.

Coursework and Grading

Grading

Your course grade will be computed based on the following categories:

Category	Points
Participation and Preparation	8%
Homework and assignments	17%
Unit Exams (3)	45%
Final Exam	30%

Your final letter grade will be based on the total number of points earned. The table below shows the number of points needed to earn each letter grade.

Grade	Percentage
A	At least 90%
B	At least 80%
C	At least 70%
D	At least 60%
F	Less than 60%

Participation

Active participation is an essential part of this class, and you will be graded on participation most class days. To achieve full points in participation you must:

- attend class daily
- arrive on time and stay until the end
- arrive prepared with appropriate supplies (pen/pencil, prepared notes, calculator)
- complete assigned preparation for class (this will usually involve watching videos and filling out guided notes)
- participate actively in class.

Homework

Homework will be assigned through the MyOpenMath system, which can be accessed at www.myopenmath.com. Instructions for setting up MyOpenMath are available on D2L. You will have 5-9 days to complete each homework assignment after the material is covered in class. Homework will be due on Mondays at 11:59 PM

If you miss a homework due date, you can use a Late Pass in MyOpenMath. This will let you complete homework for 75% credit up to one week after the due date. You can also work problems in practice mode without affecting your score.

Advice on approaching homework:
Even though your homework will be online, you are encouraged to write up your homework solutions. As you are writing up these problems, describe the steps our loud to yourself. Does it make sense? Are you confident on how you arrived at that answer?

Make sure you start your homework several days before the deadline so that you have time to consult with your classmates or your instructor if you have trouble with certain problems. Ideally, you should start working on each day's assignment after class on the day it becomes available to help you prepare for the next class.

You are allowed and encouraged to work with classmates on your homework assignments. Some problems are randomized and will not match exactly between classmates. Everyone working together should be able to work the problems on their own when the assignment is finished.

The goal of the homework is to help you learn the material thoroughly—most immediately, so that you can be successful on course exams. You should continue working the problems until you know how to do each type of problem without referring to notes or examples, as you would need to on an exam. Practice showing work that reflects your thought process.

Tests

The unit exams for this class are February 26, April 9, and May 7, during class time.

Your exam scores will be the most significant part of your grade, and there not be retakes or opportunities for corrections. Your exam scores are the best indication of your final grade in the class. It is vital that you prepare thoroughly for each exam and that you engage thoughtfully with coursework and learn each section as it is encountered.

If you must miss an exam, please notify me by email at least one week ahead of the test date and arrange to take the test early. In the case of unexpected and unavoidable absences (such as hospitalization), you must let me know on the day of the test, and documentation may be required. At the instructor's discretion a missed exam may be made up, dropped from the final grade, replaced with your grade on the final exam, or counted as a zero. Clear and prompt communication is essential in the case of absence.

Final Exam

The final exam for this course is Wednesday, May 14, 1:00—3:00 PM. It cannot be taken early or late for anything except an emergency. Please consult the finals schedule before planning end-of-semester travel, as scheduled travel is not an emergency and you will not be able to reschedule the exam.

Course Policies

Attendance

Attendance in class is essential for your learning and is therefore required. I do not generally distinguish between excused and unexcused absences, since it is not my role to decide the relative importance of competing priorities in your life; attending class should be a high priority, but it isn't (and shouldn't be) your only priority. The policy below is intended to be flexible enough to allow for minor illness, emergencies for those close to you, transportation difficulties, and other necessary absences. If there are circumstances that cause you to miss a significant amount of class, please communicate promptly with me about it and I will work with you on a plan to stay caught up on course material and remain enrolled in the class.

You are expected to attend every class, in person, if at all possible. This includes arriving on time; staying to the end; being prepared; participating in class; and behaving respectfully. If you must miss class, please consult a classmate to find out what you missed.

At the instructor's discretion, students who miss more than six classes or portions of classes for reasons other than university-excused absences may be dropped from the course with a grade of F.

Learning Environment

I am committed to providing an environment that promotes learning for all students. It is important to me that this class is a welcoming, inclusive, and accessible space for all students. I am available and willing to address your issues and concerns as they arise.

Much of the learning in this class will involve interaction with your peers. In order for that to be effective, we must all conduct ourselves with respect, generosity, and openness.

Classroom Behavior

Respectful behavior in the classroom is required. Any student who is disruptive will be asked to leave class. As much as possible, please avoid leaving or entering the room during class. Make sure all electronic devices are silenced. Use of cell phones in class is not allowed.

Electronic Devices

Use of computers is not allowed in the classroom. This includes laptops, cell phones, tablets, and other similar devices. (Calculators are allowed.) Students using such devices may be asked to leave class. If a cell phone or similar device is visible or audible during an exam, you may receive a zero on that exam.

If this policy presents a serious problem, please let me know; exceptions may be made in special circumstances.

Changes

Some portions of this syllabus may alter during the semester. When possible, I will announce changes in class as well as sending an email. You are responsible for knowing everything I announce in class as well as everything I email to your official university email address. If you miss class, make sure you talk to someone who was there.

Academic Misconduct

Any incident in which a student submits work for grading that does not reflect their own effort is considered academic dishonesty. This includes using sources (by paraphrase or direct quotation) without proper attribution; collaborating on work where collaboration is not authorized; use of sources on an assignment or test where those sources are not authorized; and turning in work completed by another person.

Cheating on any work in this course will result in no credit for that work. Egregious or repeated incidents will result in more serious consequences, such as a failing grade in the course or dismissal from your academic program. All incidents of academic misconduct will be reported as specified in your student handbook.

You are permitted (and encouraged) to collaborate with classmates on in-class and out-of-class work and to study in groups for exams. Collaboration on exams is not allowed. During an exam, no items or information may be shared between students.

Student Handbook

Make sure you are familiar with university policies as described in the student handbook. This course will abide by all university policies.

Desire-to-Learn (D2L)

Extensive use of the MSU D2L program is a part of this course. Each student is expected to be familiar with this program and to regularly check posted information. D2L provides a primary source of communication regarding assignments, examination materials, and general course information. You can log into D2L through the MSU Homepage. Downloading the Brightspace Pulse app is also recommended. If you experience difficulties, please contact the technicians listed for the program or contact your instructor.

Office Hours

Office hours are time that I have set aside to answer questions about the course or course material. You are welcome to drop in during the scheduled office hours, and you do not need an appointment. I am happy to answer questions about homework problems, quizzes and tests, study practices, grades, and other topics. These are intended to be a resource for you, and talking to me during office hours is a good first step if you find yourself struggling.

If you are unable to attend scheduled office hours, you can email me (sarah.cobb@msutexas.edu) to set up an appointment at another time. In your email, please include your first and last name and some times that you'd be available. I am also willing to schedule virtual office hours, but it is more difficult to clearly communicate math remotely.

Communicating with Me

The best way to reach me is by email (sarah.cobb@msutexas.edu). I will generally respond to email within 24 to 48 hours. I will be in my office during office hours each week and often at other times; feel free to stop by. Any communication not in writing or by email should be considered unofficial.

Services for Students With Disabilities

MSU is committed to providing reasonable accommodations to allow students with disabilities to participate fully in its academic and campus life. Any student who may require special arrangements in order to meet the course requirements should contact me as soon as possible to make necessary arrangements. Students must present appropriate verification provided by Disability Support Services. The best time to present this documentation in private is during office hours. Please note that instructors are not allowed to provide classroom accommodation to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Disability Support Services located in Clark Student Center, Room 168 or call 940-397-4140.

University Closure

If any class period is missed because of a university closure, the schedule will be adjusted to cover that content at a later time. Watch D2L and your official MSU email account for information. No online classes or makeup classes will be required unless the closure is for an extended time. You are encouraged to spend the extra time working through some exercises from a section you found challenging.

Final Note

College Algebra is a difficult class: we will cover a lot of topics, and they build on each other. The course moves quickly in order to cover all of the content that you need to know in order to be successful when you move on to trigonometry, calculus, or statistics. In addition to mastering new content, you will be challenged to think abstractly, communicate mathematical ideas clearly, and solve problems in unusual contexts.

The material and the course are demanding, but they are essential to lay a foundation for future mathematical success– dedicate yourself to daily progress and work with your professor to stay on track.

However:

Although I expect a high level of engagement from students, I recognize the challenges of this class. Most of the material will come up again in future classes, and it will require multiple exposures to fully grasp the underlying logic and motivation. College Algebra has a high potential to make students feel lost, frustrated, insecure, behind, and incapable. These are natural and normal feelings.

***DON'T GIVE UP!**

Please talk to me about your concerns should you feel overwhelmed—I am here to support your learning and your success. We can chart a way forward.