

MAT 100: ELEMENTARY ALGEBRA

Fall 2026

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Time: MWF 9:00 – 9:50 AM
Place: ACD 202
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“Character is the aim of true education; and science, history, and literature are but means used to accomplish the desired end. Character is not the result of chance work but of continuous right thinking and right acting. . . . True education seeks, then to make men and women not only good mathematicians, proficient linguists, profound scientists, or brilliant literary lights, but also honest men, combined with virtue, temperance, and brotherly love — men and women who prize truth, justice, wisdom, benevolence, and self-control as the choicest acquisitions of a successful life. . . . It is regrettable, not to say deplorable, that modern education so little emphasizes these fundamental elements of true character. The principal aim of many of our schools and colleges seems to be to give the students purely intellectual attainments and to give but passing regard to the nobler and more necessary development along moral lines.”

—David O. McKay
 (*Gospel Ideals*, p. 440)

Information for all my students

Student Hours: Student hours are like office hours but they are not in my office. They are held, instead, right next door in the Magnolia Hall conference room (Magnolia Hall 109). They are at these times:

Tuesday and Thursday from 12:00 PM to 4:00 PM.

or by appointment. If you can’t make student hours physically but can drop in on Zoom, please let me know before hand. The Zoom link will be <https://zoom.us/my/drmcbsvu>. Please, feel free to drop in with your questions. No appointment is necessary.

If you have a private matter to discuss, please make an appointment to see me. If it is quick (these things usually are) feel free to come to student hours and we can step into my office.

My tentative weekly schedule is as follows:

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM	MAT 305		MAT305		MAT305
9:00 AM	MAT 100	MAT221	MAT100	MAT221	MAT100
10:00 AM	MAT 343	MAT221	MAT343	MAT221	MAT343
11:00 AM	MAT 221		MAT221		Forum
12:00 PM	MAT 221	Student Hours	MAT221	Student Hours	
1:00 PM		Student Hours		Student Hours	
2:00 PM		Student Hours		Student Hours	
3:00 PM		Student Hours	Faculty Meeting	Student Hours	
4:00 PM			Faculty Meeting		

AI Use Policy: The purpose of this course is to help you develop both skills and deep understanding, especially of mathematical concepts. Homework and assignments are designed to give you the practice you need to build those skills.

Some students may be tempted to use AI tools to complete their work instead of working through problems themselves. This is like signing up for a weight training class but using a machine to do the lifting for you; you wouldn't build the strength you need. The same is true here: if AI does the work, you miss the chance to develop the understanding and skills necessary for success in this course and in future courses.

That said, AI can be a helpful learning aid when used appropriately. Think of it like using a box to assist with pull-ups: you can use the box to help you get above the bar, then slowly lower yourself to build strength. After a while, you'll be able to do pull-ups without the box. Similarly, you can use AI to help you get "unstuck" on a problem—by asking for hints, clarifications, or explanations of a concept, rather than simply asking for the full answer. This is using AI to facilitate your learning rather than rob you of the chance to learn. This is what I refer to as using AI wisely.

Illustrative examples:

- **Wise use:** You are working on the homework and there is a question that you have already worked on but you keep getting it wrong, even after going to your notes and checking your method. You ask ChatGPT the question and observe what it did differently, you try it again and get it right with that modification. You make a note of that in your notes so you get it right next time. Or you make a note to ask about it in class.
- **Unwise use:** You have not yet attempted a certain homework question but because you are low on time you copy the question and ask ChatGPT. Only some of the explanation makes sense or seems familiar to you, but you submit it anyway. This is dishonest and not acceptable.

In this course, the policy for AI use is to use it wisely, which often means not using it at all. The unwise use of AI is prohibited and results in a loss of points and in some cases may be reported to the Provost office as a breach of academic integrity. Also, the use of AI on any quiz or test of any kind is prohibited, and if discovered will result in a zero on that quiz or test. If you are unsure about whether your use of AI is wise or unwise, please ask me before you submit your work.

If you rely on AI to do the work for you, you may finish assignments faster, but it is unlikely that you will develop the skills you need to succeed.

One more thing, the wise use of AI is likely to be extremely important in your career. Start now learning how to get the full benefit of AI usage without compromising your own DEVELOPMENT.

Policies Specific to MAT 100: Elementary Algebra

This course has been designed to teach the fundamental concepts of Algebra using a pedagogy that strongly resembles, in structure and style, that of athletics instruction.

Learning math and learning a sport have a lot in common.

- Both require a deep and internal understanding of certain rules.
- Both require the development of particular skills through practice, repetition, and guidance.
- Both require difficult strategic thinking.

My belief is that because many of you are familiar and successful at learning a sport, your brain is already ready to learn math — **we just need to use that strong neurological pathway you use to learn sports**. When learning a sport you have trained your brain to assess what information is important and to store it in a safe place to be accessed later. We are going to use that same mechanism. If you are not familiar with sports, that's OK — you will still benefit from an extremely successful learning strategy.

In this course, I will be your coach, and I will do my best to help you develop the skills and mindset necessary to succeed in Algebra. Our class times will be referred to as **practices**. Your daily warm-ups, drills, and small-group work are your "game footage" — they let me and the TA see your progress and help you improve.

On the very first day of class, everyone is assigned to a team (two or three teams, chosen completely at random). Teams choose their own names, logos, and mascots, and they compete against each other in **scrimmages** and **games** (exams). The scrimmages and games are assessments that let you test how well you have learned, with an element of competition to make it more fun and engaging.

Each ordinary practice has the same basic structure:

Time	Activity	Description
9:02–9:07	Warm-up	A short, <i>timed</i> quiz that wakes up your mathematical thinking and builds fluency. It opens at 9:02 and closes at 9:07.
9:07–9:15	Grade & questions	The answer key opens; you grade your own warm-up, and we take questions on any of the problems.
9:15–9:20	Skill quiz	A short, self-selected drill quiz on a single <i>fundamental skill</i> .
9:20–9:35	Install / Develop	Here we learn new concepts and skills. Most days we install new skills; other days we develop previously installed ones.
9:35–9:50	Small-group work	Here you work with your team to practice the skills you have learned.

On Fridays we hold a scrimmage. The Install/Develop segment runs a bit longer (about 20 minutes and with a stronger collaborative component), and the last 10 minutes are a team scrimmage in place of small-group work.

A word on drills and mastery. Just as an athlete drills footwork or free-throws until they are automatic, we drill *fundamental skills*: small, single-step procedures — for example, adding and subtracting fractions, factoring integers, simplifying fractions, translating English into mathematical expressions, and solving equations with inverse operations. Each drill is short and timed (think “minute-math”), and we measure your improvement over time. The goal is not merely to get the right answer, but to make these skills *fast and automatic*, so your mind is free to focus on the harder, more interesting problems.

Textbook: We will be using *Elementary Algebra* by Lynn Marecek, MaryAnne Anthony-Smith, and Andrea Honeycutt Mathis through OpenStax. The book is available online and free.

Required Materials:

- An **iPad** and **Apple Pencil** (both required).
- iPad Apps: Canvas Student, and an app of your choosing that will scan/convert/export as PDF, such as Adobe Scan or CamScanner.
- A one-year subscription to XYZHomework.com is required to complete the homework.

NOTE: The easiest way to purchase the subscription is through Canvas so that it is already linked to the course. You can sign up for free and use the software for 14 days before you have to purchase the subscription.

Devices in class: I will make extensive use of **Apple Classroom**. This is not an app you need to install — it is a management feature already built into your iPad. During class I will use it to **lock your iPad into the Canvas app** so that your device stays focused on our work. **Phones are not allowed in class.**

Course Description: An introductory algebra course that prepares students to understand concepts such as the properties

of real numbers, factoring, linear equations, inequalities, systems of linear equations, polynomials, rational expressions, exponents, radicals, quadratic equations, graphs and functions. Does not count towards graduation.

Prerequisites: None.

Course Components and Grading Scheme:

Warm-ups	10%	(The percentages guarantee at least the following letter grades.)	
Drills	20%		
Weights	10%	A	93%
Small-group	9%	A-	90%
Scrimmages	5%	B+	87%
Games	36%	B	83%
Final	10%	B-	80%
Total	100%	C+	77%
		C	73%
		C-	70%
		D+	67%
		D	63%

Attendance Policy: Whether an absence is “excused” or “unexcused” does not matter — you still need to learn the material. Making up an unexcused absence is exactly the same process as making up an excused one.

To pass this course you must finish the semester with no more than 9 absences that have not been made up. That is roughly 80% attendance across our 42 practices. If you end the semester with 10 or more un-made-up absences, you have not met the attendance requirement for this course and you will receive a **failing grade**.

Absences (excused or unexcused) can be made up, and there are **no mid-semester deadlines**. There is one deadline: **Reading Day, Wednesday, December 9**. Every make-up must be completed by then, and the count is taken once, at the end of the semester.

How to make up an absence: Make-ups are **hour for hour**, completed in either student hours or tutoring. You must submit an **attendance make-up form**. Make-ups can be done in advance.

Warm-ups (10%): Each practice opens with a short *warm-up quiz* (either a 3×3 or 2×3 grid of problems) delivered as an annotation assignment in Canvas. It **opens at 9:02 and closes at 9:07**. At 9:07 I will display the answer key and **you grade your own quiz**. These self-grades are audited: if you grade your own work incorrectly, you may receive a zero. After grading, we take questions on any of the problems so you learn to do them correctly. Each question is connected to its skill which is an outcome in the course, they inform your progress in that particular skill.

Drills — Skill Mastery (20%): After we address any warm-up questions, you take a *drill quiz that you select*. Drills are delivered through Canvas. You are responsible for drilling and learning these skills largely on your own: each skill is covered in class, but if you need more help you must seek it out. We do not go over drills in class — take the quiz (about 5 minutes), see how you did, and move on. The point of the daily quiz is to *incentivize and direct* your independent practice.

There are about **22 fundamental skills** in this course. Your Drills grade is the **fraction of those skills you have mastered**, and **you master a skill by scoring 90% on its 20-question drill quiz**. Your mastery progress is shown on a dashboard that is currently in development. The dashboard will show you which skills you have mastered, which skills you are close to mastering, and which skills you have not yet mastered. You can take a drill quiz as many times as you like, but you can only take them in class or in student hours. You cannot take a drill quiz at home. Important note: This whole drills set-up is in development. It is designed to help you develop your skills and to help you track your progress. It is not a perfect system. I will seek to take into account individual needs and circumstances, and I will make adjustments as necessary. Please let me know if you have any concerns or suggestions.

Practicing vs. retaking. An *identical practice version* of each drill quiz is always available, so you can rehearse a skill whenever you like; practice runs do **not** count toward your grade — they are prep only. To take a drill quiz **that counts** toward mastery, it must be taken either in class (you choose the drill) or in student hours.

Weights — Homework (10%): Just like physical conditioning exercises your body, learning to think requires you to exercise your brain — which is also a muscle. Weights is homework, completed through www.xyzhomework.com. This

platform is integrated with Canvas, so your scores should automatically appear in the Canvas gradebook. The system allows you to enter your answers and receive immediate, automated grading. At the end of the semester, your **2** lowest homework scores will be dropped. Please use AI wisely on these assignments.

To access the homework, simply open any XYZ Homework assignment in Canvas. The first time you do this, you will be prompted either to log in (if you already have an account) or to create a new account. You will begin with a 15-day trial period, after which your account must be activated. This can also be done directly through Canvas. Most students complete this process without difficulty, but if you encounter any issues, please be patient and let me know right away so we can resolve them.

Note: As you activate your account it will ask if you have an access code; these are often included with a new textbook purchase. Since we are using a free textbook, *you will not have an access code*. You will need to activate your account with an online (discounted) purchase.

A discounted subscription is available through the OpenStax Pass using the discount code **XYZF26**. Remember, the textbook itself is free. Many students have found this link very helpful: <https://xyzhomework.com/support/enrollment-activation-lti>

Due dates. Each section's homework — and the matching “Written Homework” upload — is due at **9:00 am on the next practice**, that is, at the start of the very next class meeting after we finish that section. For example, we install 1.5 on Monday, August 31, so the 1.5 homework is due at 9:00 am on Wednesday, September 2. For a section that takes two days, the clock starts after the second day. The point is to do the work while it is fresh, not to save it for the night before a game. (The ungraded *Chapter Review* sets are the exception: they stay open through **December 8, 2026 at 11:59 pm**, the last day of classes.)

As you work through the XYZ homework, you need to show your work for each question by hand. Once you complete the assignment, scan or export those pages and upload them as a PDF file to the matching “Written Homework” assignment in Canvas. This portion of the assignment is graded on completion, and you will lose one point for each missing question. The goal is for you to get instant feedback through XYZ while allowing me to see how you work. Please provide enough detail that if you get something wrong in XYZ, I can look at your written work and find what went wrong; that is what I am most interested in.

Tutor Lab requirement. You are required to spend **30 minutes each week in tutoring or office hours** working on homework. **Your Weights count only if you come in that week**; otherwise you earn no Weights credit for the week. This requirement is **waived any week after you have scored higher than 80% on the previous game**. Before Game 1 there is no waiver — until the first game is scored, everyone must come in for their Weights to count.

Small-group work (9%): During the last part of an ordinary practice you work a set of problems with your team at the board. This work is graded **out of 20 points**. So that each person's contribution is visible, **every member must clearly write their name and work in a different color of chalk**. For each member who was present but did not participate, the grade takes a **flat 25% penalty** (a flat 25% per non-participating present member — not per problem). A student who was *absent* makes the work up under the attendance make-up policy instead.

Reading a worked example and watching someone else solve a problem are not the same as solving it yourself. It is easy to leave a practice feeling like you followed everything, then sit down in front of a blank page and not know where to begin. My goal is not merely that you *know* the material but that you can *do* it — and that is built by working problems in the room, with help nearby. That is exactly what this grade is meant to reward.

Phones. Phones are not allowed in class (see *Devices in class* above). If your phone is out during practice, I will ask you to put it away. **If you do not comply, you may receive a 50% penalty on your small-group work for that day.**

Scrimmages (5%): This is a team score. Every Friday your teams compete in a competition called a scrimmage, held in place of small-group work. Each team is handed a stack of about **ten pages (30 problems total)**; each page holds questions from a specific section, with the section printed large at the top. The team captain receives the stack, and the team races to earn as many points as possible in the time allowed.

I grade the ten sheets (30 problems) and give the team a score, which becomes each member's scrimmage grade for that week. On top of the score, the teams are ranked and earn bonus points: the **highest-scoring team earns +20 points**, the

second-highest team earns +10 points (only when there are three teams), and the **last-place team earns no bonus**. (With two teams: winner +20, other team +0. With three teams: +20, +10, +0.)

If you miss a scrimmage, you must complete the entire scrimmage in student hours or tutoring (an hour-for-hour make-up, just like the attendance policy).

Games (36%): There will be 5 games this semester. These games are individual assessments. The team with the highest average score will win.

The Games will be given in the testing center. The testing center is open only on Tuesday, Wednesday, and Thursday, from 4:00 PM – 10:00 PM. Our games always open on Thursday and close the following Wednesday. Here are the dates:

Game	Opens (Thu)	Tue	Closes (Wed)
Game 1 (Ch. 1)	Sept 17	Sept 22	Sept 23
Game 2 (Ch. 2)	Oct 8	Oct 13	Oct 14
Game 3 (Ch. 3)	Oct 29	Nov 3	Nov 4
Game 4 (Ch. 4)	Nov 12	Nov 17	Nov 18
Game 5 (Ch. 6)	Dec 3	Dec 8	—

(Game 5 opens Thursday, Dec. 3 and closes Tuesday, Dec. 8, since Wednesday, Dec. 9 is Reading Day.)

Games will be paper-and-pencil tests, closed-note and closed-book. Calculators will be allowed, but you cannot use a phone or an iPad as your calculator.

Final (10%): This will be a comprehensive in-class exam, taking place during the university final-exam period, **December 10–15, 2026** (exact day and time [TBD: confirm from the final-exam schedule]), in our classroom (ACD 202) unless the registrar assigns another room.

The Final can replace one game score. At the end of the semester I compare your Final with your *lowest* game score. If the Final is higher, it takes that game's place. The rules:

- It replaces your **lowest** game score — whether that score is low because you did poorly or because you missed the game entirely.
- A **missed game counts as a 0**, so a missed game is automatically your lowest score and is the one the Final replaces.
- The replacement happens **only if the Final is higher**. A Final below your lowest game never lowers your grade; it simply changes nothing.
- **At most one** game score is ever replaced — even if you miss two games, or score poorly on several. Miss two games and the second 0 stands.
- **The Final still counts as its own 10%** either way. Replacement only affects the Games category (36%), so a strong Final can help you twice.
- This is applied automatically; you do not need to request it. (Making up a missed *practice* is a separate matter, governed by the attendance deadlines above.)

Three examples. In each, the five game scores are listed, the score in question is in **bold**, and the Games average is shown before and after the replacement.

	Game scores					Final	Games average	
	1	2	3	4	5		before	after
(1) Low score replaced	88	91	62	85	90	84	83.2%	87.6%
(2) Missed game replaced	79	84	0	88	81	77	66.4%	81.8%
(3) Final too low	90	86	93	88	84	71	88.2%	88.2%

(1) The Final replaces a low game. You took all five games; your worst was a 62 on Game 3. Your Final is an 84. Since $84 > 62$, the 84 replaces the 62 and your Games average rises from 83.2% to 87.6%. The 84 also counts as your Final.

(2) The Final replaces a missed game. You missed Game 3 entirely, so it is recorded as a 0 — easily your lowest score. Your Final is a 77. Since $77 > 0$, the 77 takes that slot and your Games average jumps from 66.4% to 81.8%. This is why missing a game is survivable, and also why it is only survivable *once*.

(3) The Final replaces nothing. You did well all semester — your lowest game was an 84 — but the Final came back a 71. Because $71 < 84$, no replacement happens: putting the 71 in would have *hurt* you, and the policy never does that. Your Games average stays at 88.2%, and the 71 counts only as your Final (10%).

Course Goals: Through completion of the course, you should be able to do the following:

- Use and understand fractions, decimals, and percentages in a variety of contexts. Be able to add, subtract, multiply, and divide them.
- Be able to solve linear equations and inequalities in one variable.
- Be able to solve application problems that can be modeled with linear equations and inequalities in one variable.
- Be able to graph linear equations and inequalities in two variables.
- Be able to work with polynomials, including adding, subtracting, multiplying, and factoring them.

Core Learning Goals (CLG): Here is a reminder of the goals SVU has for each graduate. Students completing Southern Virginia's core curriculum are expected to attain the following college-level competencies:

- *Careful Writing:* Students will be able to present arguments in clear written English with proper spelling, grammar, vocabulary, and transitions.
- *Critical Thinking:* Students will be able to separate a conclusion from its premises and evaluate how well the premises support the conclusion.
- *Analytic Reasoning:* Students will be able to evaluate a body of evidence and draw appropriate conclusions.

Core Values: Lastly, Here is a reminder of the values SVU endeavors to foster in each student. Students demonstrate:

- *Scholarship* by coming prepared to class, focusing on activities in class, and meticulously completing homework assignments.
- *Discipleship* by being respectful of others and showing courtesy and concern for others and the learning environment.
- *Accountability* by faithfully attending class and coming on time, coming prepared, being aware of assignments given and completing them on time.

- *Enthusiasm* by participating in class discussions and completing in-class activities, showing interest in cultural material and discussions about mathematics in general.
- *Refinement* by going above and beyond in living the dress and grooming standards, their manner of speech and actions, cleaning up the classroom and following proper classroom etiquette. This includes not using cell phones (texting, etc.) or other electronic devices that may disrupt learning in the class.

Title IX

Southern Virginia University is committed to providing an environment that promotes personal integrity, civility, and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking.

Southern Virginia University, in compliance with Title IX, supports the academic success of pregnant students and students with pregnancy-related conditions (pregnancy, childbirth, termination of pregnancy, lactation, and all related medical conditions or recovery). Students may request reasonable, related modifications from the University by contacting the Title IX Coordinator at titleix@svu.edu.

Title IX of the Education Amendments of 1972 states that “No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.” Title IX applies to all employees and students and covers discrimination in programs, admissions, and activities.

You can report any concerns to the Title IX Coordinator, Nathan Friesema (titleix@svu.edu), your professor, the Wellness Center, or any university administrator. Please be aware that all instructors are mandated reporters, so by law, we must disclose details relayed to us about any possible Title IX infraction to the University’s Title IX coordinator.

Accommodations: Southern Virginia University is committed to providing a learning environment that accommodates and supports students with disabilities through accommodations. The Office of Accessibility Services oversees Academic Accommodations. Students with any type of physical, medical, psychological, or emotional disability may be eligible - through the Americans with Disabilities Act (ADA) - to receive accommodations to provide equal access to the academic settings. Any student seeking accommodations should contact the Office of Accessibility Services by emailing accessibility@svu.edu. Students are advised to take care of the necessary documentation and paperwork early in the semester. Accommodations are not made until the student follows the procedures outlined on the website, (<https://catalog.svu.edu/policies/accessibility-and-accommodations>) receives an official accommodation letter AND discusses it with their professors.

Academic Honesty: Following the code of conduct, (<https://svu.edu/about/faith/code-of-conduct/>), students are expected to “be honest in all things, obey the law and follow university policies, and not cheat, steal, or plagiarize.” The objective of every faculty member is to empower students by providing opportunities for learning in the best environment possible. If there are questions about what is honest or dishonest behavior, please speak to your professor. Violations of academic honesty are reported to the Office of the Provost and appeals are handled through the student grievance process.

Wellness: We are located on the second floor of Main Hall, Room 234. We are open from 8am to 5pm Monday to Friday. To schedule an appointment with a therapist please Call or Text 540-261-8474, email counseling@svu.edu, or stop by in-person. We strive to accommodate same-day appointments for urgent needs whenever possible.

For Mental Health Emergencies After Hours:

Please use any of the following options:

- **Call or text 988** — Suicide and Crisis Lifeline
- **1-855-222-2046** — Rockbridge Area Community Services Behavioral Health Hotline

- **540-261-4911** — SVU Campus Security
- **Visit the ER** — Carilion Rockbridge Community Hospital
1 Health Circle, Lexington, VA 24450
- **Call 911**