

## **Math 3A: College Algebra SPRING 2023**

**Instructor:** Walid Tayar

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**Office Hours:** MW 11:00-11:50am or by appointment

**Virtual Office Hour:** TTH 9:00-9:50am

**Phone:** 559-638-3641 ext. 3263

**Schedule:** 52035 meets in FNR 3 from 9:00am-10:50am

52033 meets in FNR 3 from 12:00pm-1:50pm

**IMPORTANT COMMUNICATION STATEMENT:** Make sure to adjust your settings in Canvas to get notified when announcements are posted. This is how I will communicate with you. It is required that you check the announcements in Canvas to stay up to date on deadlines and other important information. Also, when you send me an email, please put **Math 3A 9am (for 9am class) or Math 3A 12pm (for 12 pm class)** in the subject line so I know which class you are in.

### **Course Description:**

COLLEGE ALGEBRA 4 units, 4 lecture hours PREREQUISITES: Mathematics 103.

ADVISORIES: Eligibility for English 1A. This is a college level course in algebra for majors in science, technology, engineering, and mathematics. Students will study polynomial, rational, radical, exponential, absolute value, and logarithmic functions; systems of equations; theory of polynomial equations; analytic geometry. (A, CSU-GE, UC, I) (C-ID MATH 151)

### **Required text/Access Code:**

College Algebra 8<sup>th</sup> Edition, Robert Blitzer

You can buy the access code with e-text at the Reedley College Bookstore or online.

The book is available electronically through the website. All of the work for this class will be done on MyLab for which you will need an access code. Ask for the Math 3A MyLab access code for Mr. Tayar's class. **Another option would be to purchase the access code through MyLab. You have the option to buy the 18-week subscription from MyLab directly which is cheaper. This will be explained in the next step on Canvas.**

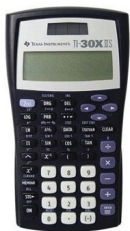
**WHEN SETTING UP YOUR ACCOUNT ON MYLAB, USE YOUR 7-DIGIT REEDLEY COLLEGE ID AS YOUR USERNAME (0123456) IF POSSIBLE.**

**YOU MUST BE REGISTERED ON MYLAB BY THE END OF THE DAY ON JANUARY 9th OR YOU WILL BE DROPPED!**

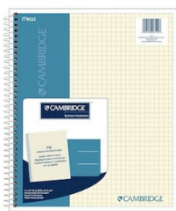
**IF YOU ARE USING THE TEMPORARY ACCESS CODE, IT IS YOUR RESPONSIBILITY TO PAY FOR ACCESS BY THE EXPIRATION DATE OR YOU WILL BE DENIED ACCESS AND DROPPED! NO EXCEPTIONS!**

### Required Course Materials:

- Non-graphing scientific calculator (i.e. TI-30xIIs)



- Pencils/rulers/paper etc.
- Class notes to be printed from CANVAS
- 3-ring binder (for class notes)
- Scantron 882E may be required
- (Optional) Mead Cambridge Quad Wire-bound Notebooks (graph paper) from the bookstore for homework. (See image below)



### Online Homework:

After you read through the section in the text, watch my videos, read through my notes, and view the additional resources in the multi-media library you can attempt the homework. You may work ahead if you like. Each assignment has a due date. Homework will not be accepted late, but the two lowest homework scores will be dropped to allow for any tech issues, emergencies or missed assignments. You can complete any past due assignments and earn 70% credit on the past due problems up until the end of the unit which will be the day before the UNIT EXAM. If you do not successfully complete (70% or better) three homework assignments in a row you may be dropped. If you are completely inactive online (on Canvas and/or MyLab) for more than 7 days you may be dropped from the course. It is important to stay current to be successful in the course! Note: When working on homework, you do not have to complete an entire assignment during one session. If you need to stop while in the middle of an assignment, you can submit your work and the program will save it for you. You can then come back to the assignment and continue from where you left off at another time as long as you do so before the deadline. By agreeing to take this class you are to be the one doing the work for this class including all homework and exams.

**NOTE: The videos assigned on MyLab and the orientation assignment will not count toward your grade. They are to be used as an additional resource. They will be deleted at the end of the semester**

**Notebook:**

You should keep all of your written work from your online homework assignments in a notebook. Please make sure to write the section number at the top of each page and circle problem numbers down the left side of the page. You may create more columns on each page to fit more work but this needs to be very neat. Do not start a new section in the middle of a page. Please start a new section on a new page. Make sure to write out each problem and solution. Your final answer for each problem needs to be circled or boxed in. **Word problems and large data sets greater than 10 do not need to be written out.** The notebook can be purchased at the book store. (see attached example of notebook entries).

**Written Homework:**

There may be written homework assignments for the semester. All work must be shown in order to receive full credit for these assignments. Your homework will be graded on completeness, neatness, and effort. If you come to class after the HW has been collected or are absent it will not be accepted for full credit. You can turn it in by the next class period for half credit.

**In-Class Assignments:**

There may be in-class assignments and possibly group projects assigned throughout the semester. No in class assignments can be made up so attendance is very important. These assignments will be included as part of your HW grade.

**Attendance:**

If you are absent more than once in the first two weeks of the semester, more than twice in the first four weeks or more than 3 times in the first nine weeks, you may be dropped from the course. Attendance is a key factor in your success as a college student. Students are expected to attend all class meetings, be on time, and be in class the entire class session. Four absences over the course of the entire semester may result in a drop from the course. However, if you decide to drop the course, it is your responsibility to make the drop official in the Admissions and Records office or else possibly receive an F in the course. There are to be no visitors in class for any reason. ALL ELECTRONIC DEVICES MUST BE TURNED OFF AND OUT OF SITE BEFORE ENTERING CLASS. If you need to text or use your phone before class begins, please step outside. You will be asked to leave if your phone rings in class. Also, cell phones are NOT to be used as calculators.

**Covid Related Absence:**

If you are absent due to covid, please try to keep up with the class work. You can read the notes and/or watch my videos and keep up with the HW deadlines. If you miss an exam or HW, I will need a doctor's note to allow for makeups. If not, I will replace a missed exam with the final at the end of the semester.

**Tardies:**

It is distracting, rude and unfair to classmates and to the instructor when a student is late. Leaving class at anytime during the lecture will not be allowed. Please use the restroom/make phone calls before or after class or during the break. If you leave class at any time, it will count as a tardy. Two tardies will be counted as an absence. You are responsible for telling me, at the end of class, that you were tardy. If I mark you absent and you do not tell me of your tardy, you will remain absent. If you leave class early, you will be marked absent. Students with chronic tardiness may be dropped from the course.

**Exams:**

There will be an exam at the end of each unit, approximately every 3-4 weeks. There are no make-ups for missed exams. No exceptions. Calling the day of the exam and telling me that you cannot make it to class is inexcusable.

YOU MAY NOT LEAVE CLASS DURING AN EXAM. YOU MUST SUBMIT YOUR EXAM BEFORE YOU LEAVE. ALL CELLPHONES/ELECTRONICS ARE TO BE COMPLETELY OUT OF SIGHT AND TURNED OFF DURING THE EXAMS OR YOU WILL RECEIVE A 0% ON THAT EXAM AND IT WILL NOT BE DROPPED OR REPLACED BY THE FINAL EXAM SCORE. THIS WILL BE COUNTED AS CHEATING (SEE CHEATING POLICY BELOW). NO EXCEPTIONS!!

**Final Exam:**

A final exam worth 100 points will be given at the end of the semester during finals week.

**Extra Credit:**

Extra credit may be assigned and will be applied to each unit. For example, extra credit points earned during Unit I will be applied to your Unit I grade.

**Grading:**

- Homework will be worth 30% of your overall grade.
- Exams and Final will be worth 70% (lowest exam score will be replaced by final score)

<u>Percent</u>	<u>Grade</u>
90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
0 - 59	F

Here is how the Final can replace a low exam score. You will notice that the Final Exam score will be entered twice at the end of the semester then I will drop your lowest exam score. This is how the grading system allows me to replace a low score. So, no matter what, the final will count toward your grade but here are the scenarios in the example below:

**If Final Is higher than lowest Exam Score**

Exam 1 = 80

Exam 2 = 75 (Gets Dropped, Replaced with 95)

Exam 3 = 87

Final Exam 1 = 95 counts toward grade

Final Exam 2 = 95 Counts toward grade since higher than lowest exam

**If Final Is lowest Exam Score**

Exam 1 = 80

Exam 2 = 75

Exam 3 = 87

Final Exam 1 = 65 Counts toward

Final Exam 2 = 65 Gets dropped since not higher than lowest exam

### **Student Learning Outcomes:**

MATH-3A SLO1: Analyze properties of various types of functions.

MATH-3A SLO2: Synthesize results from the graphs and/or equations of functions.

MATH-3A SLO3: Solve various types of equations and inequalities.

MATH-3A SLO4: Apply appropriate techniques to model real world applications.

MATH-3A SLO5: Use formulas to find sums of finite and infinite series.

*Student Learning Outcomes are statements about what the discipline faculty hope you will be able to do at the end of the course. This is NOT a guarantee: the ultimate responsibility for whether you will be able to do these things lies with you, the student. In addition, the assessment of Student Learning Outcomes is done by the department in order to evaluate the program as a whole, and not to evaluate individual faculty performance.*

### **Special Needs Requests:**

If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) 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.

**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.

**Plagiarism** is a specific form of cheating: the use of another's words or ideas without identifying them as such or giving credit to the source. Plagiarism may include, but is not limited to, failing to provide complete citations and references for all work that draws on the ideas, words, or work of others, failing to identify the contributors to work done in collaboration, submitting duplicate work to be evaluated in different courses without the knowledge and consent of the instructors involved, or failing to observe computer security systems and software copyrights.

Incidents of cheating and plagiarism may result in any of a variety of sanctions and penalties, which may range from a failing grade on a particular examination, paper, project, or assignment in question to a failing grade in the course, at the discretion of the instructor and depending on the severity and frequency of the incidents.

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

## Section 6.1

① Find the greatest common factor

$$77 = 7 \cdot 11$$

$$343 = 7 \cdot 7 \cdot 7$$

$$\text{GCF} = \boxed{7}$$

②

$$66 = 2 \cdot 3 \cdot 11$$

$$78 = 2 \cdot 3 \cdot 13$$

$$\text{GCF} = 2 \cdot 3 = \boxed{6}$$

③

$$18 = 2 \cdot 2 \cdot 3$$

$$28 = 2 \cdot 2 \cdot 7$$

$$24 = 2 \cdot 2 \cdot 2 \cdot 3$$

$$\text{GCF} = 2 \cdot 2 = \boxed{4}$$

④

$$a^6$$

$$a^8$$

$$\text{GCF} = \boxed{a^6}$$

⑤

$$a^2b^2$$

$$a^3b^4$$

$$\text{GCF} = \boxed{a^2b^2}$$

⑥

$$55 = 5 \cdot 11$$

$$35 = 5 \cdot 7$$

$$x^3$$

$$x^2$$

$$\text{GCF} = \boxed{5x^2}$$

⑦

$$3y - 6 = \boxed{3(y-2)}$$

⑧

$$14a^2 + 3a = \boxed{a(14a+3)}$$

⑨

$$315x^2 + 105x + 21$$

$$315 = 3 \cdot 3 \cdot 5 \cdot 7$$

$$105 = 3 \cdot 5 \cdot 7$$

$$21 = 3 \cdot 7$$

$$\text{GCF} = 21$$

$$\frac{315x^2}{21} + \frac{105x}{21} + \frac{21}{21}$$

$$\boxed{21(15x^2 + 5x + 1)}$$