

Scottsdale Community College (SCC) credits the diverse Indigenous people still connected to the land on which we gather. Our college resides on the tribal territory of the Salt River Pima-Maricopa Indian Community (SRP-MIC). SRP-MIC is a federally recognized nation - one of 22 Arizona Indigenous nations and one of 574 across the United States. Attached to this physical space is a painful history of forced removal and the resulting intentional genocide of its Indigenous people. We remain appreciative of our ability to teach, learn and serve in a space of such importance and reverence.

SCC acknowledges the land on which we are situated today as the traditional land and home, established by Executive Order on June 14, 1879, of two distinct tribal nations: the Onk Akimel O'odham (Pima) and the Xalychidom Piipaash (Maricopa) people. We take this opportunity to thank the original caretakers of this land. We offer our respect to their Elders and to all O'odham and Piipaash people of the past, present and future.

### **Course Information**

Semester & Year:	Spring 2023
Course Title:	College Algebra Prep
Course Prefix & Number:	MAT 114
Section Number:	25938
Credit Hours:	4
Start Date:	January 30 <sup>th</sup> , 2023
End Date:	May 12 <sup>th</sup> , 2023
Room Number:	CM 462
Meeting Days:	Monday and Wednesday
Meeting Times:	12:00 PM – 1:55 PM

# **Course Format**

The course format for this course is in-person. The start date for the course is 1/30/23. The end date for the course is 5/12/2023. This course meets on Mondays and Wednesdays from 12:00 PM to 1:55 PM.

### **Instructor Information**

Instructor:	Gabriel Tarr
Email:	gabriel.tarr@scottsdalecc.edu
Phone:	480-425-6746
Office Location:	CM 419
Office Hours:	Monday: 3:30 PM – 4:45 PM (CM 419 or <u>Zoom</u> )
	Wednesday: 2:00 PM – 3:15 PM (CM 419 or <u>Zoom</u> )
	Tuesday and Thursday: 3:00 PM – 4:15 PM (CM 419 or Zoom)

### **Course Description**

Proper use of function notation, average rate of change of functions, and evaluating arithmetic and algebraic expressions. Analysis of linear and quadratic equations, and their applications; graphs of linear and quadratic functions; operations on polynomial expressions.

### Prerequisites

None

### **Course Competencies**

- 1. Perform operations to evaluate expressions that include integers, fractions, decimals, exponents, and radicals, including the order of operations. (I-V)
- 2. Evaluate arithmetic and algebraic expressions. (I, II)
- 3. Simplify expressions involving integer and rational exponents. (II)
- 4. Perform operations on polynomial expressions. (II)
- 5. Write polynomials in factored form. (II)
- 6. Graph and determine domain, range, and other key characteristics of functions, including linear and quadratic functions. (III, IV, V)

- 7. Demonstrate the proper use of function notation. (III, IV, V)
- 8. Determine and interpret the average rate of change of linear and quadratic functions. (III, IV)
- Solve linear and quadratic equations (including those with complex solutions) using multiple methods and represent solutions exactly and approximately. (IV, V)
- 10. Solve linear inequalities in one variable and represent solutions graphically, algebraically, and in interval notation. (IV)
- 11. Model, analyze and interpret real-world problems using linear and quadratic functions. (IV, V)
- 12. Given sufficient information or data, write a linear equation. (IV)
- 13. Solve systems of linear equations in two variables. (IV)

# **Texts and Course Materials**

Foundations for College Algebra, 1st Edition (ISBN 978-1-63434-927-7). The instructor requires that you purchase a printed copy of the workbook. The printed copy of the textbook should be purchased from the SCC Bookstore. The price of the printed book is less than \$40.

You <u>must</u> bring the workbook to each class. This can be done in one of three ways.

- 1. A physical copy of the workbook in a three-ring binder.
- 2. A digital copy of the workbook on a tablet (surface pro, iPad, etc.) that you can annotate digitally (with the aid of a stylus) and save for future reference.
- 3. Printed worksheets of the workbook from MOER that you will need to print before each class. The easier option is just to buy the workbook from the bookstore. Please have a binder or folder to store these notes.

**Online Course Management System**: This course uses MOER, an Online Course Management System developed by David Lippman and the State of Washington. All of the Online Homework will be accessed through this system. Grades will also be posted through this system. The software is free to use and can be accessed here at <u>moer.maricopa.edu</u>. Failure to enroll in MOER and complete the required syllabus quiz by the due date will result in being withdrawn from the course.

#### Course ID: 16819 Enrollment Key: 25938

**Calculator Requirement**: A graphing calculator or graphing calculator app is required for this course. The instructor strongly recommends a TI-83/84. Calculators with QERTY keyboards or those that perform symbolic algebra (such as the TI-92/TI89) are not

allowed. You are expected to bring your calculator to each class session. Your cell phone may NOT be used as a calculator on your exams. The SCC Media Center will rent calculators this semester on a first-come basis. Go to the Media Center located in the Information Technology (IT) Building to rent a graphing calculator. Rentals are first-come, first-served and there are limited quantities.

**Computer Access, Webcam, Microphone, and Email:** You will need regular access to a computer with online capabilities in order to complete online assignments. You will need access to a webcam and a microphone for attending the optional virtual office hours through Zoom.

# **Course Technologies**

View the <u>Accessibility Statements & Privacy Policies</u> of technologies used in this course.

#### Maricopa Systems

This course uses key Maricopa systems for course management and communication.

- Student Maricopa Gmail Account
- Maricopa Open Educational Resource Learning System (MOER)

#### Streaming Media/Audio/Video Tools

This course uses webcasting, lecture capture systems, YouTube, and/or other streaming media services.

• YouTube

#### **Student Assignment Tools**

This course may require students to participate in or submit assignments using desktop or cloud-based applications.

- Google Products
- Microsoft Office 365
- Screencast-O-Matic
- Adobe Creative Cloud

# **Course Policies**

The following are policies specific to this course. Students are also responsible for the college policies included on the <u>Student Regulations</u> page of the Maricopa Community College District website.

**Course Progression:** You should work consistently to keep up with the course. Students are expected to keep up with the assignments and due dates. Regularly viewing the online videos and doing homework is key to success in the course. Students should make sure that they watch the online lessons before coming to class.

**Withdrawing from the Course:** If it becomes necessary to withdraw from the course, you should speak with admissions office and fill out the proper forms there. There is a last day to withdraw without an instructor's signature. It is not guaranteed that you will be able to withdraw from the course after this date.

**Math/Science Tutor Center:** Free online tutoring is available online at the following link. <u>http://www.scottsdalecc.edu/students/tutoring/math</u>. You will need to know your Maricopa gmail account ID and password, and self-enroll in a Canvas course. Details can be found at the link above.

**Be Respectful of Classroom Community:** Don't be a jerk! Make sure that when you interact with the instructor and classmates that you are respectful.

**Email and Contacting the Instructor:** It is HIGHLY inappropriate for your family members, guardians, private tutors, former teachers, or any other third-party actors to contact me to discuss anything related to your academic standing in this class. I am more than happy to discuss your academic standing with YOU (the student), but emails, messages, and phone calls from third-party actors on your behalf will not receive a response (except in extreme circumstances as determined by me). In certain cases, these third-party actors may be blocked from contacting me.

### **Grading Standards & Practices**

Your grade is NOT a commodity; it has not been purchased with your tuition. You have the right to be graded fairly, but you do NOT have the right to any specific grade. Your grade is not a reflection of you as a person. Your grade is not a measurement of effort, it is an evaluation of PERFORMANCE. This means your grade is dependent upon how well you demonstrate your comprehension of the subject through application and completion of the items listed above in the course competencies. Furthermore, it is immoral to reach out to your instructor about the consequences of not receiving a certain grade in the course. Please do not ask for extra credit or "a few extra points" in order to make a certain grade for scholarships, admittance to a certain program, or athletic eligibility. Emails and messages of this nature will be ignored.

### **Grade Scale**

Letter Grade	Points Range
Α	90 – 100%
В	80 - 89.9999%
C	70 – 79.9999%
D	50 - 69.9999%
F	0 – 49.9999%

**Media Lessons (10% of final grade):** For each unit you will be expected to complete the online media lessons in MOER BEFORE class. Each lesson is due at 11:59 AM on the day that they are due. You must complete these assignments on time to earn credit for them. Late passes are NOT allowed for the media lessons. The Online Media Lesson serves both as an introduction to the topic and as a resource for how you should aspire to write your solutions and express your mathematical work. Take careful notes as you watch the videos in this assignment. The examples in the Student Workbook are identical to those in the videos, so use the workbook to help you record your notes from the videos. Any notes you take are for your own use (you will not turn in the Media Lesson pages from the workbook). The more thorough your notes are, the more helpful they will be to you!

**Online Homework (30% of final grade):** You will be expected to complete weekly homework assignments using MOER. It will benefit you to write out the homework problems and show your work as if the instructor were grading each assignment by hand. Make sure to include notes and strategies to help you when you arrive at difficult problems. It is strongly recommended that you work ahead on homework problems so that you are able to ask the instructor during class. Assignments and due dates will be posted in MOER. Most of the homework assignments are due at 11:59 AM one week after the material is introduced in class. Late homework will be accepted by use of a late pass.

**Exams:** Your exams are meant to test your PERSONAL mathematical aptitude of topics covered prior to each exam in this class, but occasionally you will be required to draw

from your PERSONAL aptitude in topics covered in pre-requisite courses, your real-life experiences, and common sense.

**Midterm Exam (30% of final grade)** - There will be a midterm exam covering the first half of the course material (units 1 through 6 in your workbook).

**Final Exam (30% of final grade)** - There will be a final exam focusing on the second half of the course material (units 7 through 12 in your workbook). However, concepts from units 1 through 6 may appear if they are relevant to a given problem or concept.

Make up exams will only be granted under extreme circumstances. You should meet with your instructor AT LEAST TWO WEEKS BEFORE THE SCHEDULED EXAM to discuss arrangements. This discussion must take place BEFORE the scheduled date of the exam. Failure to adhere to this policy may result in a 0 for the exam.

**Participation:** Participation, while not explicitly for a grade, is useful in determining how well students are comprehending the material. The more people participate in class and demonstrate how well they are working with the material, the easier students may find the midterm and final exam to be. Participating means that everyone in the class is engaging in two or more of the following: asking questions of the class, answering questions in class, working with other students at the board, displaying their solutions (not just the answers), engaging in respectful discussion about how current scientific, social, political, or economic events relate to the content we have covered recently in class, engaging in respectful discussion about how something personal in their life relates to the content we have covered recently in class.

### **Response Time**

Students can expect a response time of up to 24 hours for the instructor to respond to messages sent via MOER or email. The 24 hours does not include weekends, holidays, or district breaks. Students can expect written assignments to be graded within 3 class meetings of the assignment's due date.

# **Attendance Policy**

Any student who misses more than three (3) classes may be withdrawn from the course. You are responsible for learning any material covered during an absence or tardiness.

# Instructional Contact Hours (Seat Time)

This is a four (4) credit-hour course that meets over 14 weeks. The typical student should plan to spend at least 14 hours per week on in-class direct instruction and out-of-class coursework (online lessons, homework, studying, etc.). Some students may require more/less time per week depending on ability, aptitude, and content.

# **Online Tutoring**

SCC's tutors are available online to help with your courses. You may work with an SCC tutor remotely using Google Meet, your phone, or email. Visit the <u>Tutoring & Learning</u> <u>Centers</u> page for detailed information on the five learning center's hours and procedures.

# Learning Tools and Your Privacy and Security

SCC utilizes a variety of software applications and web-based tools operated by third party vendors to support student learning. To allow student access to the application, site or tool, certain identifiable information may be required to establish a user name or password, and submit work and/or download information from these tools. Inherent with all internet-based tools, there is a risk that individuals assume when electing to use these tools, as they may place information at risk of disclosure.

To use learning tools responsibly, please observe all laws and the Maricopa Community College District <u>Student Conduct Code</u>, such as copyright infringement, plagiarism, harassment or interference with the underlying technical code of the software. As a student using a learning tool, you have certain rights. Any original work that you produce belongs to you as a matter of copyright law. You also have a right to the privacy of your educational records. Your contributions to learning tools constitute an educational record. By using the tool, and not taking other options available to you in this course equivalent to this assignment that would not be posted publicly on the internet, you consent to the collaborative use of this material as well as to the disclosure of it in this course and potentially for the use of future courses.

### **Tentative Course Schedule**

Date	Торіс
Monday, January 30, 2023	Unit 1 - Arithmetic Review
Wednesday, February 1, 2023	Unit 1 - Arithmetic Review
Monday, February 6, 2023	Unit 2 - Introduction to Variables
Wednesday, February 8, 2023	Unit 2 - Introduction to Variables
Monday, February 13, 2023	Unit 3 - Solving Equations
Wednesday, February 15, 2023	Unit 3 - Solving Equations
Monday, February 20, 2023	Academic Holiday - No Class Meeting
Wednesday, February 22, 2023	Unit 4 - Inequalities and Absolute Value
Monday, February 27, 2023	Unit 5 - Graphs and Functions
Wednesday, March 1, 2023	Unit 6 - Linear Functions
Monday, March 6, 2023	Unit 6 - Linear Functions
Wednesday, March 8, 2023	Midterm Exam
Monday, March 13, 2023	Spring Break - No Class Meeting
Wednesday, March 15, 2023	Spring Break - No Class Meeting
Monday, March 20, 2023	Unit 7 - Systems of Linear Equations
Wednesday, March 22, 2023	Unit 7 - Systems of Linear Equations
Monday, March 27, 2023	Unit 8 - Exponential Functions
Wednesday, March 29, 2023	Unit 8 - Exponential Functions
Monday, April 3, 2023	Unit 9 - Exponents and Roots
Wednesday, April 5, 2023	Unit 9 - Exponents and Roots
Monday, April 10, 2023	Unit 10 - Polynomials and Factoring
Wednesday, April 12, 2023	Unit 10 - Polynomials and Factoring
Monday, April 17, 2023	Unit 11- Quadratic Functions and Equations
Wednesday, April 19, 2023	Unit 11- Quadratic Functions and Equations
Monday, April 24, 2023	Unit 12 - Toolkit Functions
Wednesday, April 26, 2023	Unit 12 - Toolkit Functions

Date	Торіс
Monday, May 1, 2023	Applications and Review of Functions
Wednesday, May 3, 2023	Applications and Review of Functions
Monday, May 8, 2023	Final Exam Review
Wednesday, May 10, 2023	Final Exam

Students are responsible for the information contained in this syllabus, the Syllabus page in your Canvas course and the **College Policies & Student Services** page found in the First Steps module of your Canvas course. Students will be notified by the instructor of any changes in course requirements or policies.