COMMUNITY COLLEGE

COURSE SYLLABUS

Course Syllabus Details

Topic	Detailed Information
Course Name	Online College Algebra
Course CRN and Term	40404, Spring, 2023
GT Pathways Category	GT-MA1
Credits and Delivery Method	3 Credits, Remote Delivery
Time Expectation	4 credits times 3 hours per credit = 12 hours per week.
Location of Class	Online
Meeting Dates and Time	TBA – up to you, so long as you put in the time and effort.
Instructor	Harry S. (Steve) Mills
E-mail	hmills1@online.aims.edu
Office Location	Remote (ZOOM)
Phone Number	970-290-0550
Office Hours	On-Demand. Call or e-mail for an appointment. Typically 5 minutes or less after you call. I can't *always* do that, but I can hook you up same or next day, no matter what.
Drop Deadline Date	1/30
Course Withdrawal Date	4/5
Other Important Dates	https://www.aims.edu/resource-library/academic-calendars
Student Services	https://www.aims.edu/student-life/student-services

Course Requirements

Topic	Detailed Information
Prerequisite(s)	
Co-requisite(s)	None
Academic Policies – These Standards of Behavior statements apply to every course at Aims Community College and are hereby incorporated into this document.	Closely review these policies at: https://www.aims.edu/academic-policies Non-lawyer version: Be honest. Use common sense and common courtesy.
Materials	• MyLab Access. ISBN 8220110071987 • This includes eBook. • If you need a physical book, the bookstore has copies of the textbook, but any recent edition of College Algebra sby Dugopolski should suffice. • Plain white (unlined) A4 paper or RocketBook. I recommend RocketBook Core. RocketBook gives you a cheap, convenient way to make PDFs that I will accept for processing.

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Other Necessary Items	Access to some form of graphing calculator (TI-84 recommended) or online grapher that you can use to find x- and y-intercepts, intersections of graphs, and maximum/minimum values.

Course Information

Course Description: Focuses on a variety of functions and the exploration of their graphs. Topics include: equations and inequalities, operations on functions, exponential and logarithmic functions, linear and non-linear systems, and an introduction to conic sections. This course provides essential skills for Science, Technology, Engineering, and Math (STEM) pathways. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

Course Learning Outcomes – According to the Colorado Community College Common Course Database, upon completion of this course, the student/learner should be able to:

BEGIN BOILERPLATE THAT WON'T HELP YOU, MUCH, THIS SEMESTER, but which other institutions need to see in order for credits to transfer.

Your BEST overview of topics for this course may be found by correlating your Course Schedule with the table of contents in your textbook/eBook. You may safely skip down to the middle of Page 3 of this document.

GT-MA1: MATHEMATICS CONTENT CRITERIA (General)

Students should be able to:

a) Demonstrate good problem-solving habits, including:
   - Estimating solutions and recognizing unreasonable results.
   - Considering a variety of approaches to a given problem, and selecting one that is appropriate.
   - Interpreting solutions correctly.

b) Generate and interpret symbolic, graphical, numerical, and verbal (written or oral) representations of mathematical ideas.

c) Communicate mathematical ideas in written and/or oral form using appropriate mathematical language, notation, and style.

d) Apply mathematical concepts, procedures, and techniques appropriate to the course.

e) Recognize and apply patterns or mathematical structure.

f) Utilize and integrate appropriate technology.

GT-MA1 COMPETENCY & STUDENT LEARNING OUTCOMES (General)

Competency: Quantitative Literacy:

Students should be able to:

1. **Interpret Information**
   a. Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).
2. **Represent Information**
   a. Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words).

3. **Perform Calculations**
    a. Solve problems or equations at the appropriate course level.
    b. Use appropriate mathematical notation.
    c. Solve a variety of different problem types that involve a multi-step solution and address the validity of the results.
4. **Apply and Analyze Information**
    a. Make use of graphical objects (such as graphs of equations in two or three variables, histograms, scatterplots of bivariate data, geometrical figures, etc.) to supplement a solution to a typical problem at the appropriate level.
    b. Formulate, organize, and articulate solutions to theoretical and application problems at the appropriate course level.
    c. Make judgments based on mathematical analysis appropriate to the course level.
5. **Communicate Using Mathematical Forms**
    a. Express mathematical analysis symbolically, graphically, and in written language that clarifies/justifies/summarizes reasoning (may also include oral communication).
6. **Address Assumptions** *(required of Statistics courses only)*
    a. Describe and support assumptions in estimation, modeling, and data analysis, used as appropriate for the course.

Topical Outline – These topics will be covered in class, but not necessarily in this order:

1. Identify properties of functions including domain, range, increasing and decreasing.
2. Apply function notation.
3. Determine the inverse of a function.
4. Examine functions algebraically.
5. Analyze behavior and roots of polynomial functions.
6. Solve polynomial, rational and absolute value equations and inequalities.
7. Analyze polynomial, exponential, logarithmic and rational functions.
8. Create graphs of polynomial, exponential, logarithmic and rational functions.
9. Solve exponential and logarithmic equations.
10. Analyze piecewise functions.
11. Graph parent functions and their transformations.
12. Utilize algebraic techniques to solve application problems.
13. Solve systems of equations.
14. Classify conic sections.

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State General Education and Common Learning Outcomes: (for GT Pathways Courses)

The Colorado Commission on Higher Education has approved [*insert course prefix & number*] for inclusion in the Guaranteed Transfer (GT) Pathways program in the GT-MA1 category. For transferring students, successful completion with a minimum C– grade guarantees transfer and application of credit in this GT Pathways category. For more information on the GT Pathways program, go to https://highered.colorado.gov/academics/transfers/gtpathways/curriculum.html.

Aims Common Learning Outcomes – These outcomes define the expectations of an Aims Community College education and provide the benchmarks against which the college holds itself accountable. Find the outcomes at

https://www.aims.edu/departments/institutional-research/assessment

Course Delivery Method

Online.

Code of Conduct

MY code of conduct: Don't cheat. Use common sense and common courtesy.

Management code of conduct: To keep our college community safe, students are expected to comply with health guidelines as directed by the College, public health officials, and/or ordinance of a municipality, county, Governor of the State of Colorado, or any Executive Order of the President of the United States. Download the complete copy of the Student Code of Conduct.

Reuse of Instructional Materials

Reuse or distribution of instructional materials (e.g., PowerPoints, videos, class recordings, assessments, etc.) or student created content (e.g., online discussion posts, presentations, etc.) without approval is prohibited.

(After the above "sections", faculty may insert here or in a separate document, any course specific information, in whatever form they choose. Faculty should include and cover, at a minimum, the four pieces of information listed below. If faculty choose to put this information in a separate document, they must also include the "syllabus logo" in the top left corner of all other documents.)

Attendance Policy

Your attendance is measured solely by your timely, finished work.

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Communication and Feedback

Call any time: 970-290-0550 - For urgent, time-sensitive matters.

Email me: hmills1@online.aims.edu on online.aims.edu - Use Classlist for prompt service. If you send e-mail to my regular e-mail, I might not see it for days. I empty my inbox on D2L *every day*, so that turnaround time is always 24 hours or less.

E-Mail Settings: 5% of your grade. Follow instructions, here: https://harryzaims.com/121-online/videos/00-Orientation/emails-settings.mp4

Grading

E-mail Settings: 5%
Homework: 20%
Writing Projects: 10%
Tests: 65%

Grading Scale

Percentage	Grade	Details
90% - 100%	A	(Superior and excellent)
80% - 89%	B	(Above average)
70% - 79%	C	(Average)
60% - 69%	D	(Below average level of achievement)
Below 60%	F	(Not acceptable)

Course Schedule: See https://harryzaims.com/121-online/1340-online-spring-23/Get-Started/1340-schedule-spring-23.pdf