**GT-MA1 Mathematics**

The Colorado Commission on Higher Education has approved [course] 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/guaranteed-transfer-gt-pathways-general-education-curriculum-0>.

**Content Criteria**

1. 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.

1. Generate and interpret symbolic, graphical, numerical, and verbal (written or oral) representations of mathematical ideas.
2. Communicate mathematical ideas in written and/or oral form using appropriate mathematical language, notation, and style.
3. Apply mathematical concepts, procedures, and techniques appropriate to the course.
4. Recognize and apply patterns or mathematical structure.
5. Utilize and integrate appropriate technology.

**Competencies and Student Learning Outcomes**

## [*Quantitative Literacy*](http://highered.colorado.gov/Academics/Transfers/gtPathways/Criteria/competency.html)*:*

1. **Interpret Information**
2. Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).
3. **Represent Information**
   1. Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words).
4. **Perform Calculations**
5. Solve problems or equations at the appropriate course level.
6. Use appropriate mathematical notation.
7. Solve a variety of different problem types that involve a multi-step solution and address the validity of the results.
8. **Apply and Analyze Information**
9. 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.
10. Formulate, organize, and articulate solutions to theoretical and application problems at the appropriate course level.
11. Make judgments based on mathematical analysis appropriate to the course level.
12. **Communicate Using Mathematical Forms**
13. Express mathematical analysis symbolically, graphically, and in written language that clarifies/justifies/summarizes reasoning (may also include oral communication).
14. **Address Assumptions (*required of Statistics courses only*)**
15. Describe and support assumptions in estimation, modeling, and data analysis, used as appropriate for the course.