



# COURSE PROPOSAL FORM

## SECTION 1 - To be completed by the institution submitting course for approval

Name of institution Alabama A&M UniversityCourse prefix & number MTH 108 Course title Quantitative ReasoningSemester credit hours 3 Does course have a laboratory? ☐ Yes ☒ No Lab contact hours \_\_\_\_\_

In what general academic area is this course being offered at your institution? (Select one of the following)

☐ Written Composition
 ☐ Humanities & Fine Arts
 ☒ Math & Science
 ☐ Social Science
 ☐ Other Area \_\_\_\_\_

Check all that apply:

Course description (including prerequisites) as it appears in official catalog.



Initial submission



Re-submission



Course title/number change



Course content change

Topics include introductory treatments of sets and logic, financial mathematics, probability, and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communications should be embedded throughout the course. This course has been designed for those students whose chosen field of study is a NON-STEM mathematical pathway. If the student's field of study changes to a STEM mathematical pathway, then additional mathematics course work may be required. Prerequisite: MTH 010 or an acceptable placement test score.

NOTE: YOU MUST ALSO ATTACH OR PROVIDE A HARD COPY OF A "REPRESENTATIVE COURSE SYLLABUS TO THIS FORM.

Contact information of person submitting this proposal (name position, mailing address, telephone number and email address required)

Dr. Tau Kadhi, Associate Vice President for Academic Administration & Dean of Graduate Studies,  
4900 Meridian Street, Patton Hall 300, Normal, Alabama 35762

Signature of person submitting this proposal: \_\_\_\_\_

Date 5/8/2025

## SECTION 2 - To be completed by the AGSC/STARS Office and/or Area Academic Committee Chair

Reviewed and voted on by the following committee:

☐ AREA I&II
 ☒ AREA III
 ☐ AREA IV
Committee recommendation: ☒ Recommended for approval ☐ Not Recommended for approvalVoting Results: 21 # of YES votes 3 # of NO votes 4 # not voting/abstaining

Selected area of approval:

If NOT recommended, please give explanation:

- ☐ Area I – Written Composition  
☐ Area II – Humanities & Fine Arts  
☒ Area III – Math & Science  
☐ Area IV – History & Social Science

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Signature of Committee Chair (or Executive Director): \_\_\_\_\_

Date 7-29-25

## SECTION 3 - To be completed by the AGSC Chair or Executive Director

AGSC APPROVAL:

- ☐ Approved  
☐ Not Approved

AGSC APPROVAL STAMP

☐ Tabled -- If tabled provide reasoning: \_\_\_\_\_

AGSC Chair: \_\_\_\_\_ Date \_\_\_\_\_

For more information visit... [www.alabamatransfers.com](http://www.alabamatransfers.com)

AFTER SECTION 1 (ABOVE) IS COMPLETE, MAIL FORM AND COURSE SYLLABUS TO:



ALABAMA TRANSFERS  
1101 SOUTH BRUNDIDGE ST.  
ELC BUILDING – SUITE 107F  
TROY, AL 36081

THE ALABAMA TRANSFERS OFFICE STAFF WILL SEND OUT THE PROPOSAL TO THE APPROPRIATE COMMITTEE AND, IF RECOMMENDED FOR APPROVAL, WILL THEN BRING THE COURSE BEFORE THE AGSC FOR A FINAL VOTE.

# REASONING FOR NO VOTES



## MTH 108 - Quantitative Reasoning (3SH)

*Submitted by AAMU for inclusion in Area III*

- 21 Yes
- 3 No (reasons for no votes)
- 4 Did Not Vote

1) This seems to be just an easier version of MTH 110. The new topics are useful but could be covered in MTH 110 by removing the matrix/Markov topics.

2) MTH 108 falls far below the expectations for a college-level core math course. Its content lacks cohesion, presenting a hodgepodge of topics without a unifying mathematical theme or direction. The syllabus includes three weeks on home finance and one week on voting, which appears to be an effort to replace more rigorous mathematical material with loosely related applications. However, even this attempt at real-world relevance is undermined by poor sequencing—students are asked to apply mathematical concepts before they have learned them. More broadly, MTH 108 resembles a light version of finite math mixed with general life skills, and it is positioned below the level of our Finite Math (MATH 1100) course, which already serves non-STEM students and requires prerequisites such as MATH 1000 or ALEKS 50. This course simply does not rise to the level of academic rigor we expect from an Area III core math course. While the offering institution is welcome to include this course in their curriculum, it should not be accepted as satisfying Alabama's core math requirement. It sets a bar lower than what we have consistently upheld.

3) I do not see all required topics on the course syllabus.



College of Engineering, Technology, and Physical Sciences  
Alabama A&M University  
Normal, AL 35762

COURSE SYLLABUS  
Updated Spring 2025

Course Number	MTH 108
Title	Quantitative Reasoning
Call Number/Section	e.g., 10035, Section 10
Class Times/Location	e.g., 3:00 – 3:50; Monday, Wednesday, Friday
Prerequisites	MTH 010 or an acceptable placement test score
Textbook	<i>Mathematical Excursions 4<sup>th</sup> edition</i> by Richard Aufmann, Joanne Lockwood, Richard Nation, Daniel Clegg <b>ISBN (Physical Text):</b> 9781305965584 <b>ISBN (eBook + WebAssign Software):</b> 9781337879507
Instructor/Office	First name Last name
Office Hours	
E-mail/Telephone	

#### COURSE DESCRIPTION

3 credit hours. Topics include introductory treatments of sets and logic, financial mathematics, probability, and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communications should be embedded throughout the course.

This course has been designed for those students whose chosen field of study is a NON-STEM mathematical pathway. If the student's field of study changes to a STEM mathematical pathway, then additional mathematics course work may be required.

#### COURSE FORMAT

Students are expected to attend every class session and complete all homework assigned following each lecture. Students must have a university-authorized excuse in order to make up a test. All cell phones must be turned off during class time, and cell phones cannot be used as calculators. Students are encouraged to visit during office hours for additional support. MTH 108 is a coordinated course. All sections will cover the same material and assignments.

#### STUDENT LEARNING OUTCOMES

Upon completion of the course, students should be able to:

- Apply the language and notation of sets.
- Determine the validity of an argument or statement and provide mathematical evidence.
- Solve problems in mathematics of finance.
- Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems.
- Interpret and analyze various representations of data.
- Demonstrate the ability to choose and analyze mathematical models to solve problems from real-world settings, including, but not limited to, personal finance, health literacy, and civic engagement.

## COURSE OUTCOMES

Upon completion of this course, the student will demonstrate his or her abilities to think critically, communicate quantitative information, and apply mathematical concepts:

- Critical Thinking Skills - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
- Communication Skills - to include effective development, interpretation, and expression of ideas through written, oral, and visual communication.
- Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

## SERVICES FOR PERSONS WITH DISABILITIES

Alabama A&M University is committed to providing equal access to all educational programs and ensuring compliance with applicable laws, including Section 504 of the Rehabilitation Act of 1973, and the applicable titles of the Americans with Disabilities Act (ADA) of 1990 for qualified students with disabilities. For additional information, please visit the [Office of Disability Services](#), located in the Health and Counseling Center, or email [disabilityservices@aamu.edu](mailto:disabilityservices@aamu.edu).

## ATTENDANCE POLICY

A student is permitted one (1) unexcused absence for each credit hour generated by the class. For example, two (2) absences are allowed in a two-hour class.

## TUTORIAL ASSISTANCE

Tutorial assistance for undergraduate courses can be obtained from the [Tutorial Assistance Network](#) (TAN). TAN is located in Room 115 of the J. F. Drake Memorial Learning Resources Center and can be contacted at [tan@aamu.edu](mailto:tan@aamu.edu).

## CLASSROOM CODE OF CONDUCT/DRESS CODE

The Classroom Code of Conduct that includes General Decorum and Student Dress Code can be obtained from the [AAMU Student Handbook](#).

## GRADE DETERMINATION

Course Requirements	Percent of Total
Homework assignments	10%
Quizzes	15%
Tests	50%
Comprehensive Final Exam	25%

Course Grading Scale	
Percentage	Grade
90% – 100%	A
80% – 89.99%	B
70% – 79.99%	C
60% – 69.99%	D
00% – 59.99%	F

## COURSE OUTLINE

Week 1	Syllabus
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	1.1 Inductive and Deductive Reasoning 1.2 Problem Solving with Patterns
Week 2	1.3 Problem-Solving Strategies 2.1 Basic Properties of Sets
Week 3	2.2 Complements, Subsets, and Venn Diagrams 2.3 Set Operations
Week 4	Review Chapters 1 - 2 Test 1
Week 5	3.1 Logic Statements and Quantifiers 3.2 Truth Tables, Equivalent Statements, and Tautologies
Week 6	4.1 Introduction to Apportionment 4.2 Introduction to Voting
Week 7	7.1 Measurement 7.3 Perimeter and Area
Week 8	7.5 Volume and Surface Area Review Chapters 3 – 4, 7 Test 2
Week 9	9.2 Rate, Ratio, and Proportion 11.1 Simple Interest 11.2 Compound Interest
Week 10	11.3 Credit Cards and Consumer Loans
Week 11	11.4 Stocks 11.5 Home Ownership
Week 12	Review Chapters 9 and 11 Test 3
Week 13	12.3 Probability and Odds 12.6 Expectation 13.1 Measures of Central Tendency
Week 14	13.2 Measures of Dispersion Review Chapters 9, 12 – 13 Test 4
Week 15	Review for Comprehensive Final Exam
Week 16	Comprehensive Final Exam