



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 111 Course title Elementary Statistics ISemester 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

Non-Calculus based introduction to statistics, statistical measures of data, statistical description of data, elementary probability, random variables, binomial and normal distributions, estimation, testing hypotheses. 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: None

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: Tau Kadhi 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 IVCommittee recommendation: ☒ Recommended for approval ☐ Not Recommended for approvalVoting Results: 22 # of YES votes 1 # of NO votes 5 # not voting/abstaining

Selected area of approval:

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

If NOT recommended, please give explanation:

See next page →

Signature of Committee Chair (or Executive Director): K. S. Date 7-29-25

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

AGSC APPROVAL:

- ☐ Approved
☐ Not Approved
☐ Tabled -- If tabled provide reasoning: _____

AGSC APPROVAL STAMP

AGSC Chair: _____ Date _____

For more information visit... www.alabamatransfers.comAFTER 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 VOTE



MTH 111 - Elementary Statistics (3SH)

Submitted by AAMU for inclusion in Area III

- 22 Yes
- 1 No (reason for no vote)
- 5 Did Not Vote

1) The proposal for MTH 111 presents several inconsistencies and concerns that raise questions about its suitability as an Area III core math course. First, the prerequisite information is contradictory: the syllabus states a prerequisite of MTH 011 or an acceptable test score, while the course proposal form indicates "Prerequisite: None." This inconsistency reflects a lack of careful attention in the preparation of the materials. Moreover, the syllabus reveals that approximately half the semester is spent drawing bar charts, box plots, and Venn diagrams, while the remaining half attempts to cover statistical concepts that are addressed in greater depth in STAT 2510 at Auburn. However, unlike STAT 2510—which is not a core course but does require MATH 1100 or higher—MTH 111 requires no core-level math preparation, which suggests a significant gap in expected mathematical rigor and student readiness. While expertise in statistics may vary, it is clear that MTH 111 offers only a superficial treatment of statistical topics, and its low prerequisite standard places it below the level we maintain for our core courses. From Auburn's perspective, this course does not meet the academic standards we associate with a college-level core math option.

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

COURSE SYLLABUS
Updated Spring 2025

Course Number	MTH 111
Title	Elementary Statistics I
Call Number/Section	e.g., 10035, Section 10
Class Times/Location	e.g., 3:00 – 3:50; Monday, Wednesday, Friday
Prerequisites	MTH 011 or satisfactory placement test score
Textbook	<i>Understandable Statistics 13th edition</i> by Charles Brase, Corrinne Brase, Jason Dolor, James Seibert ISBN (Physical Text): 9780357719176 ISBN (eBook + WebAssign Software): 9780357719190
Instructor/Office	First name Last name
Office Hours	
E-mail/Telephone	

COURSE DESCRIPTION

3 credit hours. Non-calculus based introduction to statistics, statistical measures of data, statistical description of data, elementary probability, random variables, binomial and normal distributions, estimation, and hypothesis testing. 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.

STUDENT LEARNING OUTCOMES

- Upon completion of the course, students are expected to be able to
- Develop quantitative skills necessary for analyzing and summarizing data
 - Gain a working knowledge of descriptive statistical methods and their applications
 - Understand probability and probability distributions, particularly the normal distribution
 - Distinguish between descriptive and inferential statistics and understand the concept of hypothesis testing
 - Define statistics, discuss data types, contrast qualitative and quantitative data, examine common applications of data analytical methods using real-world examples
 - Develop procedures for listing and grouping quantitative data, both in tabular and graphical format.
 - Present basic descriptive statistical measures of location (mean, median, mode) and variability (range, variance, standard deviation)
 - Introduce the concept of probability and probability distributions, including the binomial and normal distributions
 - Illustrate the concept of random samples and sampling distributions (of the mean) as a transition from descriptive to inferential statistics
 - Distinguish between a sample and a population
 - Calculate point (and confidence) interval estimates for a population mean using a large sample
 - Present methods for hypothesis testing of a population mean using a large sample

- Present methods of hypothesis testing of differences between two population means
- Present methods for analyzing data from normal populations
- Describe (via calculation and graphs) statistical relationships between two variables

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 performing poorly on tests and quizzes are encouraged to visit my office during office hours for extra help. MTH 111 is a coordinated course. All sections will cover the same material and assignments.

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—Develop a logical, consistent plan to solve a problem, recognize consequences of the solution, and articulate a reason for choosing solution method
- Communication Skills—Use and present quantitative information in connection with an argument or problem solution and explicate it in an effective format
- Empirical and Quantitative—Construct and present a detailed problem statement with evidence of relevant contextual factors and possible approaches for solving the problem, then implement a solution and review the results.

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.

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.

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%
Test	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	1.1 What is Statistics?
Week 2	1.2 Random Samples 2.1 Frequency Distributions, Histograms, and Related Topics
Week 3	2.2 Bar Graphs, Circle Graphs, and Time-Series Graphs 2.3 Stem-and-Left Displays
Week 4	Review Test 1
Week 5	3.1 Measures of Central Tendency: Mode, Median, and Mean Weighted Average 3.2 Measures of Variation
Week 6	3.3 Percentiles & Box-and-Whisker Plots 4.1 What is Probability?
Week 7	4.2 Some Probability Rules: Compound Events 4.3 Trees and Counting Techniques
Week 8	Review Test 2
Week 9	5.1 Introduction to Random Variables and Probability Distribution 5.2 Binomial Probabilities 5.4 The Geometric and Poisson Probability Distributions
Week 10	6.1 Normal Distributions 6.2 Standard Units and Areas under the Standard Normal Distribution 6.5 The Central Limit Theorem
Week 11	Review Test 3
Week 12	7.1 Estimating μ When σ Is Known 7.2. Estimating μ When σ Is Unknown
Week 13	8.1. Introduction to Statistical Tests 8.3. Testing a Proportion p 8.4. Tests Involving Paired Differences (Dependent Samples) 8.5 Testing $\mu_1 - \mu_2$ and $p_1 - p_2$ (Independent Samples)
Week 14	Review Test 4
Week 15	Review for Comprehensive Final Exam
Week 16	Comprehensive Final Exam