



Math 1010 Course Syllabus

Course Title:

Mathematics for General Studies

Instructor Information:

Instructor:

Office:

Email/Phone:

Office Hours:

Webpage:

Course Prerequisites:

Two years of high school algebra and a Math Enhanced ACT score of at least 19, or COMPASS placement.

Course Description:

Mathematics for General Studies, three credit hours. This course satisfies the True Blue Core Quantitative Literacy requirement and is also part of the mathematics sequence for students preparing to become elementary school teachers. Topics include logic, sets, algebraic reasoning, probability, statistics, and consumer mathematics.

Quantitative Literacy (Quant Lit) (3 hours)

- For all catalogs 2024-2025 and beyond, this course meets the True Blue Core (TBC) curriculum requirement for Quantitative Literacy (Quant Lit). To learn more about TBC requirements: <https://w1.mtsu.edu/truebluecore/core.php>.
- For all catalogs prior to 2024-2025, this course meets the general education curriculum requirements for Mathematics (3 hours). To learn more about general education requirements for catalogs prior to 2024-2025: https://w1.mtsu.edu/gen_ed/requirements.php.
- **The TBC outcome for Quantitative Literacy:** Students demonstrate the ability to interpret, represent, calculate, apply, and analyze numerical data in a variety of settings, and will make assumptions and communicate those assumptions based on quantitative information.

Attendance Policy:

Attendance is required at each class meeting. Participation in University sanctioned activities or in military duties and situations where the institution's policy on inclement weather is applicable are considered excused absences. However, non-attendance does not relieve a student of the responsibility for work covered or assigned. The instructor will keep a record of attendance for each student.

Required Materials:

Textbook: Mathematical Ideas, 14th edition by C. Miller, V. Heeren, J. Hornsby, C. Heeren, M. Morrow, & J. Newenhizen

Calculator: A TI-83 or TI-84 Plus graphing calculator is required for this course.

Course Purpose:

The goal of this course is to expand students' understanding of mathematics beyond the entry-level requirements for college. Topics include, but are not limited to, problem solving, set theory, logic, counting methods, probability, statistics, and financial management. The student's mathematical skills are fostered in the areas of mathematical modeling with applications, problem solving, critical thinking skills, and the use of appropriate technologies.

Learning Outcomes:

Upon completion of this course with a passing grade, the student will have:

- Use inductive reasoning to generate hypotheses from identifiable mathematical patterns. Use logical operators in applications of deductive reasoning.
- Illustrate and prove set relationships using Venn diagrams.
- Carry out combined set operations and use the tools of set theory to solve problems involving surveys.
- Use concepts of logic and set theory to analyze logical arguments.
- Use counting techniques and determine the probability of, odds for, and odds against given events.
- Generate descriptive statistics, including measures of central tendency, measures of dispersion and measures of position, for given data sets.
- Develop and utilize formulas involving simple and compound interest.
- Solve problems involving truth in lending, amortization of loans, and financial investments.
- Apply processes of problem-solving (including the tool of algebra) in the various mathematical content areas of the course.
- Recognize connections between various mathematical content areas of the course; for example, set theory and probability (the sample space for an experiment is a set); probability and statistics (the area under the normal curve is a probability; mathematics of finance and algebra (the formula for future value of Money under compound interest is the n th term of a geometric sequence); logic and set theory (logical arguments can be analyzed using Venn Diagrams).
- Use appropriate technology in related mathematical applications; for example, use a graphing calculator to conduct probability simulations and a spreadsheet to examine an amortization schedule.

Course Requirements:

In order to accomplish the learning outcomes of this course, the learner is required to:

- Attend class lectures
- Participate in class activities
- Read and study assignments
- Solve assigned problem sets
- Complete test, quizzes, homework, etc.
- Complete a comprehensive final exam

If you do not take the final exam, you cannot pass the course.

Course Topics:

This course consists of selected topics including, but not restricted to, problem solving, set theory, logic, counting methods, probability, statistics, and financial management.

Sections To Be Covered:

Chapter	Sections Covered
1	1.1, 1.2, 1.3
2	2.1, 2.2, 2.3, 2.4
3	3.1, 3.2, 3.3, 3.4
10	10.1, 10.2, 10.3, 10.5
11	11.1, 11.2, 11.3, 11.5
12	12.1, 12.2
13	13.1, 13.2, 13.4

Course Evaluation and Grading:

- Alternative assessments, such as collaborative investigations, projects, presentations, homework, group work, etc. will account for 15 to 20% of the final grade.
- In-class quizzes and tests will account for 55 to 60% of the final grade.
- Departmental comprehensive final exam accounts for 25% of the final grade. Note: The final will only be given at the time noted below (under important dates) in the regular class meeting room.

Final Exam:

The final examination is a Mathematics Department, multiple-choice, comprehensive examination given to all students enrolled in MATH 1010. Students are required to have completed the final examination as per the scheduled date/time for their respective section: see Academic Calendar on MTSU Pipeline. The final examination is closed book and closed notes (except for 8.5" x 11" sheet allowed for notes). Examination pamphlets and scratch paper are provided by the exam proctor. Unexcused absences for the final examination result in a course grade of F.

Note: Students are responsible for and required to bring the following materials to the final examination: (1) a large scantron, Form No. 4521, (2) a TI 83 or 84 Plus graphing calculator, (3) a #2 pencil, and (4) an 8.5" x 11" sheet of paper containing student preferred information.

Grading Scale:

Percentage	Grade
90-100	A
80-89	B
70-79	C
60-69	D
Below 60	F

Important Dates:

Last Day to drop without a grade:

Last Day to drop with a W:

Final exam Time and Date:

Math Tutoring:

Math tutoring for this course is available as a free service to MTSU students. More information is available at <http://mtsu.edu/math/students.php#tutoring>.

Academic Integrity/Misconduct:

Please review the [information on Academic Integrity and Misconduct](#). Academic integrity is a hallmark of Middle Tennessee State University. We expect students to present original work for all academic assignments turned in for credit and appropriately credit all sources used.

Academic misconduct includes, but is not limited to:

1. Plagiarism: The adoption or reproduction of ideas, words, statements, images, or works of another person as one's own without proper attribution. This includes self-plagiarism, which occurs when an author submits material or research from a previous academic exercise to satisfy the requirements of another exercise and uses it without proper citation of its reuse.
2. Cheating: Using or attempting to use unauthorized materials, information, or study aids in any academic exercise. This includes unapproved collaboration, which occurs when a student works with others on an academic exercise without the express permission of the professor. It also includes purchasing assignments or paying another person to complete a course for you.
3. Fabrication: Unauthorized falsification or invention of any information or citation in an academic exercise.

Going online and using information without proper citation, copying parts of other students' work, creating information to establish credibility, or using someone else's thoughts or ideas without appropriate acknowledgment is academic misconduct. If you have a question about an assignment, please ask me to clarify. All cases of academic misconduct will be reported to the Director of Student Academic Ethics and may result in failure on the test/assignment or for the course.

Students guilty of academic misconduct are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions (including suspension from the university), which may be imposed through the regular institutional procedures as a result of academic misconduct, the instructor has the authority to assign an "F" or zero for an

activity or to assign an “F” for the course. Students accused of plagiarism will be immediately reported to the Director of Student Academic Ethics.

Drop/Withdrawal Policy and Dates:

Please note the Drop Policy and Withdrawal Procedures as they are stated in the Current Registration Guide. A grade of “I” will be given only in accordance with University Policy. No grade of “W” will be assigned after the official drop date except in situations involving extreme extenuating circumstances beyond the student’s control. In particular, a “W” will not be granted merely because the student is failing. Students should be aware that missing the official drop date and thereby receiving an “F” can have ramifications on financial aid.

General Conduct in Class:

The instructor has primary responsibility for control over all classroom behavior and can direct the temporary removal or exclusion from the classroom of any student engaged in disruptive conduct or conduct which otherwise violates the general rules and regulations of MTSU.

Lottery Scholarship Policy:

Do you have a lottery scholarship? To retain the Tennessee Education Lottery Scholarship eligibility, you must earn a cumulative TELS GPA of 2.75 after 24 and 48 attempted hours and a cumulative TELS GPA of 3.0 thereafter. A grade of C, D, F, FA, or I in this class may negatively impact TELS eligibility.

If you drop this class, withdraw, or if you stop attending this class you may lose eligibility for your lottery scholarship, and you will not be able to regain eligibility at a later time.

For additional Lottery rules, please refer to your Lottery Statement of Understanding form (<http://www.mtsu.edu/financial-aid/forms/LOTFOD.pdf>) or contact your MT One Stop Enrollment Counselor (<http://www.mtsu.edu/one-stop/counselor.php>).

Students with Disabilities:

Middle Tennessee State University is committed to campus access in accordance with Title II of the Americans with Disabilities Act and Section 504 of the Vocational Rehabilitation Act of 1973. Any student interested in reasonable accommodations can consult the [Disability & Access Center \(DAC\)](#) website and/or contact the DAC for assistance at 615-898-2783 or dacemail@mtsu.edu.

Title IX:

Students who believe they have been harassed, discriminated against or been the victim of sexual assault, dating violence, domestic violence or stalking should contact a Title IX/Deputy Coordinator at 615-898- 2185 or 615-898-2750 for assistance or review [MTSU’s Title IX website](#) for resources. MTSU faculty are concerned about the well-being and development of our students and are legally obligated to share reports of sexual assault, dating violence, domestic violence and stalking with the University’s Title IX coordinator to help ensure student’s safety and welfare. Please refer to [MTSU’s Title IX website](#) for contact information and details.

Mental Health:

As a college student, you may experience a range of challenges and issues that can interfere with your physical and mental well-being, hinder your academic experience, and negatively

impact your daily life. Some of these experiences may include overwhelming depression/sadness, anxiety, high levels of stress, use of alcohol/drugs, difficulty sleeping, difficulty concentrating, and/or loss of motivation. These challenges and issues can lead to thoughts of self-harm and suicide. If you or any of your classmates are experiencing these issues, it is important to reach out and ask for help. Discuss your situation with a friend, a family member, your instructor, or an academic advisor. Remember: Everyone struggles. It's okay to talk about it. Ask for help. YOU ARE NOT ALONE!

The True Blue Pledge:

As a member of this diverse community, I am a valuable contributor to its progress and success. I am engaged in the life of this community. I am a recipient and a giver. I am a listener and a speaker. I am honest in word and deed. I am committed to reason, not violence. I am a learner now and forever. I am a BLUE RAIDER. True Blue!

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