SAILS MRDM Syllabus 2025-26

Cosby High School

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Classroom: 119

Class Information:

- Class Title: Mathematical Reasoning for Decision Making
- Class Code: G02H97
- Credits: 1
- Class Prerequisites: Algebra I, Geometry, and Algebra II or Integrated Math I, II, and III

Class Description:

Applications and modeling using mathematics are the primary foci of this course. Throughout the course, you will explore mathematical content in the context of applications to the real world. Topics will build upon your previous knowledge of how to solve and represent mathematical concepts in multiple ways. This class encourages you to use math to answer problems we all encounter in life. This course is *best intended for students who are planning to attend a College of Applied Technology, military service, or enter the workforce immediately following graduation.

Learning Modules:

- Module 1: Mathematical Reasoning for Decision Making is an Everyday Skill
- Module 2: Financial Literacy is Money in the Bank
- Module 3: Algebra for the Real-World
- Module 4: Geometry is Everywhere
- Module 5: Statistics Frame Our World
- Module 6: What's Next?

Standards for Mathematical Practice:

Being successful in mathematics requires the development of approaches, practices, and habits of mind that need to be in place as one strives to develop mathematical fluency, procedural skills, and conceptual understanding.

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.

- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Literacy Standards for Mathematics

Communication in mathematics employs literacy skills in reading, vocabulary, speaking, listening, and writing. Mathematically proficient students communicate using terminology and multiple representations including graphs, tables, charts, and diagrams. By describing and contextualizing mathematics, students create arguments and support conclusions. They evaluate and critique the reasoning of others, analyze, and reflect on their own thought processes. Mathematically proficient students have the capacity to engage fully with mathematics in context by posing questions, choosing appropriate problem-solving approaches, and justifying solutions.

- Use multiple reading strategies.
- Understand and use correct mathematical vocabulary.
- Discuss and articulate mathematical ideas.
- Write mathematical arguments.

Content Standards (see Mathematical Reasoning for Decision Making | MR (tn.gov))

- Use financial mathematics to make personal financial decisions.
- Use financial mathematics to make business decisions.
- Use linear programming techniques to solve real-world problems.
- Solve real-world optimization problems.
- Analyze data from multiple viewpoints and perspectives.
- Work with the normal distribution in real-world situations.
- Work with confidence intervals in real-world situations.
- Understand the role of precision in measurement.
- Accurately use standard and nonstandard units in measurement.

Class Layout

This class is organized into six easy-to-follow modules, each containing everything you need for the Mathematical Reasoning for Decision Making (MRDM) class. Read this syllabus carefully. Below you will find the grading scale and policies about how to complete the required activities and assessments.

To begin, start with Module 1: "MRDM is an Everyday Skill." This module includes directions for getting started and locating all the materials necessary for success in this class. Check out the onscreen calculator and calculator "helps" available in the  Student Helps section.

At the bottom of each page, you'll find a blue "Mark Complete" button. When you finish a topic or activity, you can manually mark it as complete by clicking this button. The "Mark Complete" feature in D2L helps you keep track of your progress. It allows both you and your teacher to see what you've accomplished and what still needs to be done. For example, after reading a page or watching a video, simply click the blue "Mark Complete" button. The button will turn a lighter blue to indicate the page has been marked as complete. This feature is especially useful for staying organized and ensuring you don't miss any important tasks.

Marking lessons as complete will update the Content Navigator Widget, located on the main page below the announcements, which is a great tool to ensure you're finishing all tasks and requirements. Make sure to complete each activity to the best of your ability and follow the pacing guide/calendar schedule. Avoid procrastination; staying on top of your work makes learning more enjoyable and less stressful. No one performs better under stress. They just do it because there's no time left to procrastinate.

Your class schedule is set by your teacher, so check in with them regularly to ensure you're on track. Students may work ahead and complete modules early.

Participation Expectations

You are encouraged and expected to actively participate in this class by completing the requirements on time and doing your best. Your effort and dedication will help you succeed and make the learning experience more enjoyable!

Instructional Materials

- Graphing calculator, such as TI-83/84 or NumWorks calculator
- A NumWorks on-screen emulator is provided for free, and an app version can be loaded onto the student tablet/computer.
- All resources are provided. No textbook is required.
- You will need to keep track of your username and password for D2L and organize all of your working materials using what is provided in the class.

Software/ Hardware / Equipment / Technical Skill Expectations

- Microsoft Office or equivalent (Google Docs, iWork, etc). You must be able to save files in doc, docx, rtf, or pdf format.
- Firefox, Chrome, Edge, or Safari browser

- You must be able to work with documents and upload your assignments to a digital folder.

Graded Activities & Assessments – Overview

Categories	Percentage of Total Grade
EdReady Homework Study Paths	25%
D2L Lessons	25%
Personal Financial Plan	5%
Business Financial Plan	5%
Exams	40%
Ready for Industry (RFI)	Bonus
Total	100%

EdReady Homework Study Paths:

- Pre-Diagnostic tool to determine your skill level and build an individualized study path for you.
- Individualized videos, resources, problem examples and interactive tools and activities to help you learn and increase your study path score.
- Mastery Score for Study Path = 80%
- You must complete all required elements of your study path in order to reach your mastery score of 80%.
- Everyone will access the MRDM curriculum using this site: sails.brightspace.com. Look for the EdReady link in Module 1 and on the top Navigation bar.

Module Exams:

- Module Exams are best attempted after achieving an 80% or higher on the corresponding EdReady Homework Study Path and D2L assignments.
- You can use the on-screen calculator, ACT approved handheld calculator, clean formula sheets, and paper & pencil.
- Scores can be reviewed in the gradebook after submitting.
- Students can only review Module Exam questions with their teacher.
- Students may seek feedback from their teacher and may return to the study materials in the module for review and practice prior to taking and/or retaking the exam.
- Attempts limited to five. Additional attempts may be granted for specific circumstances.
- Passing Score = 70%

Midterm and Final Exams:

- Scores can be reviewed in the gradebook after submitting.
- Students can only review questions from the Midterm or Final Exam with their teacher.
- Feedback and study supports are provided instead of the exact exam questions.
- Attempts limited to five. Additional attempts may be granted for specific circumstances.
- Passing Score = 70%

SAILS MRDM TCAT Waiver:

Students who complete the SAILS MRDM curriculum with a score of 70% or higher on each proctored assessment will be eligible to waive the Applied Mathematics and Data Literacy portions of the Technology Foundations course at any Tennessee College of Applied Technology (TCAT).

Technology Foundations is a foundational academic course that supports students' success in technical college programs by meeting minimum competencies in Applied Mathematics, Data Literacy, and Reading Comprehension, as determined by TCAT faculty. Please be aware that some TCAT Allied Health programs may have unique admission requirements, and MRDM may not qualify for a learning support waiver if specified in individual college catalogs.

Academic Integrity Statement:

We have promised higher education institutions that our SAILS completers are held to the standards of a college course. Violations of academic integrity undermine the validity of our program and the SAILS course itself. We must be able to guarantee that students demonstrate mastery of the skills through proctored tests. This is the single most important piece of our course. Without it, the SAILS course is not valid, and we do not have actual student success.

ACADEMIC HONESTY

The teacher expects all students to refrain from acts of academic misconduct including but not limited to:

1. According to Harbrace Handbook, 15 Edition:
    a. Plagiarism is defined as "presenting someone else's ideas, research, or opinions as your own without proper documentation, even if it has been rephrased."
    b. This includes but is not limited to:
        1. Copying verbatim all or part of another's written work;

2. Using phrases, figures, or illustrations without citing the source;
3. Paraphrasing ideas, conclusions, or research without using the source;
4. Using all or part of a literary plot, poem, or film without attributing the work to it's creator.

2. Cheating - construed as attempting to deceive or mislead which includes, but is not limited to the following:
    a. Utilizing old tests, projects, notes or written papers that are not your own to be turned in.
    b. Providing unauthorized information to a fellow student about exam content.
    c. Receiving unauthorized aid from any source with quizzes, examinations, or other assignments.
    d. Seeking information in an unacceptable manner during/preceding an exam or other assigned work (cheat sheet, verbal exchange, looking at another person's paper or electronic device, utilizing headphones, using textbook when the test/quiz is not an open book test/quiz, using textbook test bank etc.).
    e. Consulting with a classmate or others when taking a computerized test.
    f. Disregarding other specific policies and procedures outlined for a particular class.
    g. Utilizing unapproved technology/electronic equipment during testing (i.e.: mobile devices such as cell phones, smart devices, ChatGPT, etc.).
    h. Using the same Internet Protocol network address (IP address) as another student for testing without approval from the course faculty.
3. The use of any generative artificial intelligence (AI) tool must be cited for any assignment where it has been used and may not be used unless specifically allowed by your instructor. Please see your teacher if you have questions.

Academic Dishonesty Consequences: Students who are found guilty have the option of either redoing the assignment within a specified time-period and accepting a letter drop in grade or taking a zero on the assignment.

RELIGION IN THE CLASSROOM

The board affirms that it is essential that the teaching about religion – and not of a religion be conducted in a factual, objective and respectful manner in accordance with the following guidelines:

Cocke County Board Policy 4.804:

Educational content which consists of religious themes shall be presented in a factual, objective, and respectful manner in accordance with the following guidelines:

1. Religious themes may be a part of the curriculum for school-sponsored activities and programs provided it is essential to the learning experience in the various fields of study and is presented objectively.

2. The inclusion of religion shall be for educational purposes only.

3. The emphasis on religious themes should be only as extensive as necessary for a balanced and comprehensive study of the curriculum. Such studies shall never be used to proselytize, establish, foster, or demean any particular religion, religious tenets, or beliefs.

4. Student-initiated expressions to questions or assignments which reflect their beliefs or non-beliefs about a religious theme shall be accommodated.