

SAILS MRDM Syllabus Template 2025-26

Teacher Name: Amy Evans

Classroom: B-12

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	15%
D2L Lessons	20%
Personal Financial Plan	5%
Business Financial Plan	5%
Exams	45%
Ready for Industry (RFI)	10%
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.

Classroom Technology Policy:

NO PHONES IN THE CLASSROOM AT ANY POINT!!!! Once you enter the classroom, cell phones **MUST** be turned off/silent and put away.

Classroom Rules

- **NO CHEATING!** You run the risk of not receiving course credit.
- Listen and Read often, & be prepared for class.
- **NO CELL PHONES!** Cell phones must be turned off and placed in the calculator pockets or backpack each day upon entering the classroom.
- The student must relinquish their cell phone before going to the restroom.
- **NO FOOD!!! WATER ONLY & MUST HAVE LIDS THAT WILL CLOSE!!!**
- **NO PERSONAL DEVICES**, students **MUST** use a school issued device.