

Syllabus for MATH 105R Math for Modern Society

Sections 1A1 and 1B1: Monday, 8:30 AM – 10:20 AM, Hemenway Hall 407
Wednesday, 8:30 AM – 10:20 AM, Hemenway Hall 407
(1A1 | CRN 90384) Friday, 8:30 AM – 9:20 AM, Hemenway Hall 407
(1B1 | CRN 90385) Friday, 9:30 AM – 10:20 AM, Hemenway Hall 407



Dr. Sarah L. Mabrouk

Phone: (508) 626 – 4785 **Email:** smabrouk@framingham.edu

Office: Hemenway Hall 402B

Student Hours: Monday, 10:30 AM – 11:30 AM
Wednesday, 10:30 AM – 11:30 AM
Thursday, 10:30 AM – 12:30 PM
Friday, 10:30 AM – 11:30 AM

An artist may use quantitative assessment in understanding materials and design, planning, and creation of artistic works.ⁱ Wise decisions in business are based on quantitative analysis, for example, cost-benefit analysis, break-even analysis, feasibility studies, and statistical analysis of data.ⁱⁱ Reporting news stories with quantitative content involves more than writing: journalists need the ability to analyze, accurately interpret, and communicate quantitative information in a meaningful way.ⁱⁱⁱ Economists must be able to read and evaluate academic literature and determine its relevance to economic policy as well as the skill to analyze and interpret data.^{iv} Some use quantitative methods to analyze literature^v, and some writers have used mathematics as the inspiration for their works.^{vi} Quantitative reasoning is used in fashion design, from basic measurements to pattern design and creation, the analysis of fit and form, and determination of the costs and amounts of materials for creation of one item as well as mass production.^{vii} A geographer uses quantitative analysis and statistics in the study of the physical environment, weather patterns, and climate patterns of the Earth and their effect on human and wildlife ecologies as well as economics and culture.^{viii} Political scientists study the population and use data and statistical methods to analyze "the social, political, and monetary implications of a community's opinions and actions".^{ix} Doing some research, you will find that quantitative reasoning and analytical skills are important in every discipline.

Course Description and Learning Objectives

An immersion in quantitative problem-solving, as it relates to real-world scenarios, in order to facilitate making informed decisions. Topics related to numbers in the news, financial mathematics, mathematical modeling, and probability and statistics enable students to sharpen arithmetic and algebra skills. An emphasis is placed on critical reading, sound reasoning, and precise oral and written communication in various applied situations. This course includes an additional one-hour per week lecture recitation. Topics may vary by section at the discretion of the instructor with the goal of supporting students' readiness for, and success, in the lecture course.

General Education

- **Common Core Math Requirement**
- **Domain II-A – Analysis, Modeling, and Problem Solving:** The study of analytical, quantitative, and/or formal reasoning methods involving the manipulation of numbers or other symbols to solve problems.

Learning Objectives:

Overarching Learning Objective – Solve Problems Using Critical Thinking

- 3** – Solve Problems Using Quantitative Thinking
- 8** – Solve Problems Using Creative Thinking

By the end of the course, you should develop

- the skills necessary to analyze a variety of real-world scenarios;
- the ability to discuss, both verbally and in writing, your analysis with others; and
- the ability to use and to interpret quantitative information presented in a variety of formats.

Attendance

Attendance during each course meeting is *expected* and will be *noted*. Lateness of more than ten (10) minutes counts toward an absence as does leaving early, *without an appropriate reason* discussed with the instructor *in advance*.

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- If you miss a course meeting, it is *your* responsibility (i) to access the *class notes* and *summary* posted on the *Notes* page on *Canvas* and (ii) to obtain related course-meeting information *from* your email, *Canvas*, the course website, and other course members. Absence does *not* entitle you to an extension for submitting assignments, taking quizzes, or taking examinations. *It is your responsibility to read about and work through any course material that you miss due to your absence as well as complete course-related work on time.*
- You may miss **no more than five (5) course hours** during the semester *without penalty* to the participation component of your course grade. Monday and Wednesday course meetings each count for two (2) course hours, and Friday course meetings count for one (1) course hour. If you are absent for more than five (5) course hours during the semester, your participation for each missed course meeting beyond the allowed five (5) course-hour absences will be recorded as a zero (0). Since it is your choice how you use these five (5) allowed course-hour absences, *no excuses or doctor's notes will be accepted.*

CAUTION: Not being present during course meetings jeopardizes your grade as you miss course material and topic discussions, group problem solving and analysis of examples, and information about assignments, quizzes, and examinations.

Make-Up and Late-Submission Policy

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Make-up assignments, make-up quizzes, and make-up examinations will *not* be administered. Late assignments will *not* be accepted. Examinations will be administered on the dates stated. Quizzes and in-class assignments will be administered on Fridays, and online assignments will *not* be available *after* their due date. The grade for an examination, quiz, in-class assignment, or online assignment that is not submitted will be recorded as zero (0).

NOTE: The last day to withdraw from a course *without* a W-grade is Thursday, September 10, 2026, and the last day to withdraw from a course *with* a W-grade is Wednesday, November 25, 2026. The last day to change course grade status to *Credit/No Credit* is Wednesday, November 25, 2026. Classes end on Monday, December 14, 2026.

The *Attendance Census Survey* is conducted from Friday, September 11, 2026, to Thursday, September 17, 2026. The *Mid-Semester Warning Grades Survey* is conducted from Monday, October 19, 2026, to Monday, October 28, 2026.

Meeting Recordings Policy

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According to [Massachusetts General Laws, Part IV, Title I, Chapter 272, Section 99](#), it is a felony to record any in-person, by-phone, or electronic conversation without the knowledge and permission of all participants. Consequently, recording course meetings without the explicit permission of all participants is illegal as well. Course members – students and the instructor – form a learning community and our learning community must be a safe place for members to interact, share questions, and work together to explore, analyze, and learn the course material. **No member of this community should feel threatened that anyone is recording audio and/or video during meetings related to the course.**

- To eliminate the pressure that students may put on one another regarding permission to record course meetings and since the instructor's permission is required to record meetings during which she is present, *I, as the instructor, do not and will not give permission for anyone to record* course meetings, student hours, or appointments with me, whether in-person or online.
- To eliminate the temptation that some may have to record meetings without permission, **wearable technology (including watches or glasses), phones, tablets, and computers must be turned off and put away in your bag** during course meetings, student hours, and appointments. A tablet or computer will be allowed if its use is related to course material being discussed.
- Since detection apps for smart glasses are not accurate and since recording indicators on smart glasses can be overridden, smart glasses are *not* allowed during meetings of any type. **Conventional eyeglasses must be used.**

Course Etiquette

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You are expected to pay attention, be respectful, and participate during course meetings. Do not talk over or interrupt others: wait your turn to contribute to discussions and analysis. **Always use respectful language:** use of profanity is unacceptable as is the use of discourteous and threatening language. Neither disruptive behavior nor disrespectful conduct will be tolerated.

- All electronic devices not expressly allowed for in-class work **MUST** be turned off and put away.
- You are expected to be *present* and *actively engaged* during course meetings. This includes contributing to course discussions and problem solving in addition to asking questions.

You cannot make meaningful contributions during course meetings when you are, for example, texting, monitoring social media, watching videos, playing games, surfing the web, or doing assignments for other courses: such activities should be

done on *your time*, not during *course time*. **Those performing such activities during course meetings as well as those who are disruptive will be considered to be absent from class and will be directed to leave the classroom.**

- Do not interrupt course meetings by announcing *your late arrival* or *your early departure* – everyone can see you.
- Do not disrupt course meetings with noise. Eating and crinkling wrappers, taking phone calls (which is totally inappropriate and unacceptable during course meetings), tapping, singing, humming, playing music (even with headphones, which is unacceptable as well), watching videos, having conversations, and other activities should be performed on *your time*, not during course meetings. **Those performing such activities during course meetings will be considered to be absent from class and will be directed to leave the classroom.**

You are expected to conduct yourself in a mature, respectful, and professional manner *at all times*. As stated in the [Classroom Conduct Policy](#) on the University website,

Framingham State University supports the principles of freedom of expression for both faculty and students. In order to maintain these principles, all students and course instructors are entitled to a safe, positive, and constructive teaching and learning environment. Disruptive or dangerous behaviors in classrooms and other academic settings can disturb teaching and learning, and these behaviors will not be tolerated. Any individual who engages in disruptive or dangerous behaviors in classrooms may be subject to disciplinary action in accordance with the Classroom Conduct Policy found in the University undergraduate catalog.

Class Preparation and Participation

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Being prepared for class includes, but is not limited to, doing the related readings *before* each course meeting, working on practice exercises (in the eBook, provided on course handouts, sent via email or posted online, and available via Pearson's MyLab), reviewing the class notes and summary posted on the *Notes* page on *Canvas* prior to the next course meeting, maintaining and updating your course notebook (which should include class notes and the practice exercises on which you are working), and having appropriate materials such as your notebook and writing instruments as well as, *when directed to do so*, a calculator or computer, for use during course meetings.

Participation can be contributions to course discussions, in-class problem solving, and analysis of real-world scenarios as well as *questions*. Questions are a very important component of the learning process: *your questions are significant contributions to each course meeting*. **There is no such thing as a stupid question.**

Assessments and Placement of Devices

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For all in-class assignments, quizzes, and examinations, your work will be evaluated based on accuracy: all necessary, supporting work demonstrating your analysis and use of course methods must be provided. You will earn zero (0) points for values, expressions, explanations, or conclusions for which supporting work using course methods is not provided. You must demonstrate your ability to apply course concepts and methods in order to earn credit. No credit is earned for correct values, expressions, explanations, or conclusions without supporting evidence.

Wearable technology (including watches or glasses), phones, tablets, and computers must be turned off and put away in your bag during in-class assignments, quizzes, and examinations. A tablet or computer may be allowed during an in-class assignment if its use is required for the completion of the assignment.

- During examinations, your bag, rain- or cold-weather gear, and other belongings must be put at the front of the room. You may have writing instruments (pencils are best) and any *stated* allowed material with you at your desk; you may *not* have a pencil/pen bag.
- Anyone found to have wearable or other not-permitted technology in use during an in-class assignment, quiz, or examination will be directed to submit the assessment, gather their belongings, and leave the room. Since using unallowed materials or technology is a violation of the *University Policy Regarding Academic Honesty*, the Dean of Students, the appropriate college dean(s), and the Office of Community Standards will be notified, and the process outlined in the *Procedures for Handling Cases of Alleged Infractions of Academic Honesty* will be followed.

Assignments and Quizzes

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Via quizzes, in-class assignments, and *MyLab* assignments online, you will apply the concepts, topics, and methods discussed and examined during course meetings. It is *your* responsibility to be present and prepared for quizzes and in-class assignments as well as to complete *MyLab* assignments on time.

- 10 to 15-minute **Quizzes** may be administered at the end of course meetings on Fridays. Since the numbers used in quiz problems will be sufficiently rigged and since approximations are unacceptable, calculators will not be allowed.
- **In-class assignments** may be administered during course meetings on Fridays. Since the numbers used in problems will be sufficiently rigged and since approximations are unacceptable, calculators will not be allowed.

- **MyLab (a.k.a., MyLab Math, and MyMathLab [MML]) assignments** are completed *entirely* online; no written work is submitted. These problems are set so that you may rework the problems as needed. That is, if you do not earn full credit on a problem, you may rework the problem until MyLab runs out of new versions for the problem.

Examination Dates

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There will be two (2) examinations, and a *comprehensive/cumulative* final examination. The dates for these *mandatory* assessments are listed below.

Exam I: Friday, October 23, 2026

Exam II: Friday, November 20, 2026

Final Exam: Monday, December 21, 2026, 11:30 AM – 2:30 PM

NOTE: The date for Exam I or Exam II may be adjusted, if needed. The date for the final examination is set by the University: this date **CANNOT** be changed.

Course Grade Percentages

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Your course **grade** will be determined by your participation during course meetings, scores on the assignments and quizzes, scores on the two (2) examinations, and score on the *cumulative* final examination.

The components of your course grade will be weighted as stated below.

Course Participation: 10%

Assignments and Quizzes: 40%

Two (2) Exams: 15% each (**Total:** 30%)

Final Examination: 20%

The weights for the graded components of the course may be adjusted, if needed, to reflect any changes in the workload during the semester.

Academic Honesty

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You are expected to read the sections of the Framingham State University [undergraduate catalog](#) that describe the *University Policy Regarding Academic Honesty* and the *Procedures for Handling Cases of Alleged Infractions of Academic Honesty*.

- *Examples* of infractions of the *University Policy Regarding Academic Honesty* include: giving or receiving help on assignments on which you are expected to do your own work (i.e., unauthorized collaboration); using AI for assistance or to complete assignments on which you are expected to do your own work; giving or receiving help during quizzes or examinations; distribution, acceptance, or use of materials or technology during in-class assignments, quizzes, or examinations *without* the permission of the instructor; and altering work on graded materials in an attempt to obtain additional credit.
- Plagiarism, *looking at or copying from* another student's assignment, quiz, or examination, allowing another student to *look at or copy from your* assignment, quiz, or examination, doing an assignment, quiz, or examination *for someone else*, and having someone do an assignment, quiz, or examination for you are additional examples of breaches of the *University Policy Regarding Academic Honesty*.
- Not being truthful about your health, not being upright regarding the illness or death of a friend or family member, not being forthright regarding your availability to take an examination or quiz, not being honorable about the operation of your computer or your computer-access, not be forthright about the operation of your calculator or your calculator-access, not being honest regarding the submission of an assignment, and not being truthful about your ability to be present for an examination or a quiz are examples of violations of the *University Policy Regarding Academic Honesty* as well.
- Submitting work for problems on other versions of an examination, quiz, or assignment serves as *evidence* of violation of the *University Policy Regarding Academic Honesty* as does submitting work involving terminology, notation, and/or methods not used in this course or submitting work similar to that of another student.

All infractions of the *University Policy Regarding Academic Honesty* will be reported to the Dean of Students, the appropriate college dean(s), and the Office of Community Standards. The process outlined in the *Procedures for Handling Cases of Alleged Infractions of Academic Honesty* will be followed.

Required Textbook, Software, and Supplies

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Thinking Mathematically, 7th Edition, by Robert F. Blitzer with [MyLab](#)

We will use the Pearson's *MyLab* (also known as *MyLab Math* and *MyMathLab*) system throughout the course for eBook

access, practice exercises, online assignments, and a variety of resources.

The software for the course is MS Office, and you need a scientific calculator which must, at least, have built-in combination, permutation, and factorial functions. **You must install the Zoom app on your computer.**

Communication

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Course emails will be sent using the *student.framingham.edu* email address for each course member listed on *MyFramingham*.

- All **email** correspondence must be signed using your full name. The subject line for course communication is "**MATH 105R MMS:**" followed by a meaningful – *not blank* – reason for the communication. Quotation marks are *not* used in subject lines for messages, and your name is *not* included in the subject line.
- Replies will be sent to messages received from *student.framingham.edu* email addresses or those generated via the *Canvas* message system *ONLY*.
- Replies will *not* be posted for comments to graded in-class assignments, graded quizzes, or graded exams returned via *Canvas*. Graded assignment, quiz, and exam facilities on *Canvas* are *NOT* a means for communication. **If you have a question about a graded assignment, quiz, or exam, you should send your question via email or meet with me during student hours.**
- When you communicate by **phone**, clearly identify yourself using your full name and state the course section in which you are enrolled *at the beginning* of the conversation or voice message. If you leave a **voice message**, speak *slowly* and *clearly* so that your name, course information, contact information, and message can be understood.

NOTE: Email is a better means of communication than voice mail.

Mask Policy

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As recommended by the [Department of Public Health](#) on Mass.gov, you should "stay home when you have symptoms of any respiratory illness, like flu, [COVID-19](#), and RSV" as "[staying home when sick](#) helps prevent the spread of germs". In addition, "[wearing a mask](#) provides protection against COVID and other viruses, especially when indoors or in crowded spaces" ... "if you have a weakened immune system, ... are at increased risk for severe disease ... , or ... someone in your household ... is at increased risk for severe disease". Although the use of masks is voluntary in all settings, I request that you wear a mask during any face-to-face meetings with me. I will wear a mask during my face-to-face meetings with you.

NOTE: The mask policy will be updated as needed.

FSU Notice of Non-Discrimination and Diversity

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Framingham State University is committed to a policy of [non-discrimination](#), [equal opportunity](#), [diversity](#), and affirmative action. The University is dedicated to providing educational, working, and living environments that value the diverse backgrounds of all people. Furthermore, the Massachusetts Civil Rights Act ("MCRA", M.G.L. c. 12, §§ 11H, 11I, 11J) protects the rights of all residents of and visitors to Massachusetts to be free from bias-motivated threats, intimidation, and coercion that interfere with their civil rights. The MCRA protects the right to attend school, live peacefully, and enjoy other basic rights.

FSU Commitment to Antiracism

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At Framingham State University, faculty, staff, and students work together to sustain a learning, working, and living community free from hate, discrimination, harassment, and intolerance. We recognize the damaging effects of systemic racism – including policies, structures, and historic practices – on the experience and success of communities of color. Coming from different backgrounds and different levels of privilege, we can all affirm and engage in antiracist work.

Diversity of voices, and of minds, strengthens our ability to solve problems and to ask and answer questions about the world we share. As your instructor, I commit to upholding community values of inclusion, civility, accessibility, and mutual respect. I expect *all course members* to commit to creating a community that affirms and welcomes all persons from diverse backgrounds and experiences, and support the realization of everyone's potential.

Disability/Access Services

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"Framingham State University offers equal opportunities to all qualified students, including those with disabilities. The University is committed to making reasonable accommodations as necessary to ensure that its programs and activities do not discriminate, or have the effect of discriminating, on the basis of disability. Disability/Access Services works with students with ADD/ADHD, Autism Spectrum Disorder, learning and psychiatric disabilities, students with mobility disabilities, students

who are blind or low vision, students who are d/Deaf or hard of hearing, and students with chronic medical conditions.”[❖]

“Disability/Access Services works to provide reasonable accommodations to qualified students. The purpose of accommodations, and/or auxiliary aids is to reduce or eliminate any barriers that may exist because of a disability. Framingham State University is not mandated by law to waive specific courses or academic requirements considered essential to a particular program or degree. Rather, the University is mandated to ensure access so that individuals are not discriminated against on the basis of their disability.”[❖]

- For further information, please visit the [Center for Academic Success and Achievement \(CASA\)](#) section of the Framingham State University website. You may contact LaDonna Bridges, *Dean of Student Success and Persistence*, at 508-626-4906 or lbridges@framingham.edu, or Tanya Milette, *Associate Director of Disability/Access Services*, at 508-626-4627 or tmilette@framingham.edu, or email *Disability Services* at disabilityservices@framingham.edu.

Final Comments

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You are welcome and encouraged to meet with me if you have questions or concerns about the course or the course material. It may happen that our analysis and discussions of topics and methods seem clear while we work together during course meetings, but *appear* foreign when you work on practice exercises *on your own*. When you learn new material, it is normal to have questions: *questions are a natural part of the learning process*. Asking questions helps you to identify concepts and methods that necessitate further exploration and helps you to incorporate new ideas, approaches, and strategies into your knowledge base. Consider discussing and working on practice exercises with others, and *please* know that *you are always welcome to meet with me*. I would be glad to answer your questions and to help you as you learn. Always remember that **there is no such thing as a stupid question**.

ⁱ <http://mathcentral.uregina.ca/beyond/articles/art/art1.html>

ⁱⁱ <https://www.sciencenews.org/article/when-art-and-math-collide> <http://weusemath.org/?career=animator>

ⁱⁱⁱ <http://smallbusiness.chron.com/examples-quantitative-reasoning-business-30966.html>

^{iv} <http://weusemath.org/?career=budget-analyst> <http://weusemath.org/?career=cost-estimator>

^v http://www.cjr.org/behind_the_news/journalists_need_to_do_the_math.php

^{vi} <https://www.socialsciencespace.com/2013/05/using-quantitative-skills-in-journalism/>

^{vii} <http://gregmankiw.blogspot.com/2006/09/why-aspiring-economists-need-math.html>

^{viii} <http://weusemath.org/?career=economist>

^{ix} <https://youtu.be/IFny7mKDRQs?si=TfmxNzEdvFFukBuw>

^x http://digitalhumanities.org/companion/view?docId=blackwell/9781405148641/9781405148641.xml&chunk.id=ss1-6-9&toc.id=0&brand=9781405148641_brand

^{xi} <https://www.quantamagazine.org/the-theorist-who-sees-math-in-art-music-and-writing-20240112/>

^{xii} <https://www.youtube.com/watch?v=iY3cqChYels>

^{xiii} <http://www.tandfonline.com/doi/full/10.11120/elss.2014.00035>

^{xiv} <http://weusemath.org/?career=geographer>

^{xv} <http://weusemath.org/?career=political-scientist>

If you are feeling lost or overwhelmed ...

1. Meet with me

You are always welcome to meet with me during student hours: student hours are for you and appointments are *not* required. You may speak with me after class, call me, or send email to set up an individual or group appointment. Your questions are important to me: questions are a valuable and significant component in learning concepts and exploring new methods as well as correcting misconceptions.

To set up an appointment during which to meet via Zoom, send a request via email using your student.framingham.edu email address. Once the day and time have been determined, you will receive a Zoom meeting invitation containing the URL and meeting ID.

2. Use the resources available on Canvas, the course website, and MyLab

Class notes (*created during course meetings*) are posted on *Canvas* after each course meeting, and summaries of our in-class analysis are posted with the class notes. Course handouts and resources are available on the course website. Practice exercises with the view-a-similar-problem feature, additional examples, and videos are available via MyLab.

3. Meet with tutors available at CASA or via ThinkingStorm

The Center for Academic Success and Achievement (CASA) provides tutors with whom you may work for additional help. *ThinkingStorm Online Tutoring* may be accessed via the menu on *Canvas*. Additional information about tutoring can be accessed on the Extra Help page of the course website.

[❖] <https://www.framingham.edu/academics/academic-success/center-academic-success-and-achievement-casa>