Syllabus – Spring 2026

Excluding materials for purchase, syllabus information may be subject to change. The most up-to-date syllabus is located within the course in HuskyCT.

Course and Instructor Information

Course Title: Mathematics for Business and Economics
Credits: 3
Format: ONLINE (WW)
Prerequisites: Recommended Preparation: Math 1010 or the equivalent
Professor: Luan Doan

Email: luan.doan@uconn.edu
Office Hours/Availability: The time for office hours is as followed: Tuesday and Thursday, MONT 404, 2—4 pm

Course Co-instructor: Prof. Nicole Massarelli
Email: nicole.massarelli@uconn.edu
Office: MONT 303
Office Hours: Tuesday 10 am – 12 pm in person, Wednesday 4 pm – 5 pm virtual

Teaching assistants:
(1) Yaxin Zhao
Email: yaxin.zhao@uconn.edu
Office: MONT 422
Office Hours: Tuesday and Thursday: 3:30 pm – 5:30 pm, 6:30 pm – 8:30 pm in person

(2) Thu Nguyen
Email: thu.2.nguyen@uconn.edu
Office: MONT 322
Office Hours: Tuesday and Thursday 1:30 pm – 4:30 pm, Wed 9am – 11am in person

(3) Elsa Church
Email: elsa.church@uconn.edu
Office: MONT 422
Office Hours: Monday 10 am – 1 pm in person, Wednesday 1 am – 4 pm virtual, Friday 10 am – 12pm in person

Meeting with TAs and the Q-Center
Our course TAs will be helping administer the course by holding office hours. The Q Center is also available to help, and they have tutors for MATH 1070 available nearly every day.

Course Materials

Required course materials should be obtained within the first week of class. Students will be given a free trial period at the start of the session for the online homework.

Required textbooks are available for purchase through the UConn Bookstore (or use the Purchase Textbooks tool in HuskyCT). Textbooks can be shipped (fees apply). You may also get access directly from Cengage through the WebAssign link.

Required Materials:
- A*pplied Finite Mathematics* by Edmond C. Tomastik and Janice L. Epstein (bundled with WebAssign Code)

You can also buy the Access code with e-book directly from Cengage.

Course Objectives

By the end of the semester, students should be able to:

1. Understand the basics of sets and know how to find the size of sets.
2. Know how to solve various probability problems including understanding conditional probability and Bayes' Theorem.
3. Understand how permutations and combinations work and how they are related to probability.
4. Know how to calculate values for Bernoulli Trials.
5. Understand what random variables are and how to calculate measures of central tendency and spread. Understand the normal distribution.
6. Work with simple and compound interest problems and annuities and amortization.
7. Work with and create simple mathematical models.
8. Know how to solve systems of linear equations, including using linear programming.
9. Work with matrices, carry out matrix multiplication and Gaussian Elimination.
10. Use matrices to solve systems of equations.

Course Outline (and Calendar)

Chapter 4: Sets and Probability (Chapter 4)
Chapter 5: Counting and Probability (Chapter 5)
Chapter 6: Probability Distributions and Statistics (Chapter 6)
Chapter F: Finance (Chapter F)
Chapter 1: Systems of Linear Equations and Models
Chapter 2: Matrices
Chapter 3: Linear Programming: the Graphical Method

Daily Schedule

Note: the instructor reserves the right to change the schedule if he sees fit.

- There are 28 units that need to be learned in 14 weeks (not counting the Spring recess), **MATH1070 is an intense course.**
- It is the student's duty to follow the course material and understand all the topics listed, either using the suggested daily schedule below, or following their own study plan, as long as all the homework assignments are turned in before or by the deadline posted in the last column of the table.
- Please pay attention to the collective exam days (in **red**): **No request for makeup exam will be considered if the student fails to communicate with the instructor before the deadline (5 pm of the exam day)**.

Week #	Week Dates	Section	Topic
1	1/20 – 1/23	4.1	Introduction to Sets
2	1/26 – 1/30	4.2	The Number of Elements in a Set
		4.3	Sample Spaces and Events
3	2/2 – 2/6	4.4	Introduction to Probability
		4.5	Rules for Probability
4	2/9 – 2/13	4.6	Conditional Probability
		4.7	Bayes' Theorem
5	2/16 – 2/20	5.1	Multiplication Principle and Permutations
		5.2	Combinations
		Exam 1 covering Chapter 4 (4.1 – 4.7) on Tuesday 2/17	
6	2/23 – 2/27	5.3	Probability and Counting
		5.4	Bernoulli Trials
7	3/2 – 3/6	6.1	Random Variables
		6.2	Measures of Central Tendency
		Exam 2 covering Chapter 5 (5.1 – 5.4) on Tuesday 3/3	
8	3/9 – 3/13	6.3	Measures of Spread
		6.4	Normal Distributions
	3/16 –3/20	**Spring Recess**	
10	3/23 – 3/27	F.1	Simple Interest and Discount
		F.2	Compound Interest
		Exam 3 covering Chapter 6 (6.1 – 6.4) on Tuesday 3/24	
11	3/30 – 4/3	F.3	Annuities
		F.4	Present Value of Annuities and Amortization
12	4/6 –4/10	1.1	Mathematical Models
		1.2	Systems of Linear Equations
		Exam 4 covering Appendix F (F.1 – F.4) on Tuesday 4/7	
13	4/13 – 4/17	1.3	Gaussian Elimination
		1.4	Systems of Equations with Non-Unique Solutions
14	4/20 – 4/24	2.1	Introduction to Matrices
		2.2	Matrix Multiplication
15	4/27 – 5/1	3.1	Linear Programming
		3.2	Graphing Linear Inequalities
		3.3	Solving Linear Programming Problems
		Exam 5 covering Chapters 1 and 2 (1.1 – 1.4 and 2.1 – 2.2) on Tuesday 4/28	
Final Exam covering all topics (Chapters 1, 2, 3, 4, 5, 6, F) date TBD			

Homework

This course's homework is on an external platform online called WebAssign.
There are 28 homework assignments that due **every Friday at 11:59pm of the week (about 2 assignments per week, except the first week there is 1, and the last week there are 3)**.
Please check the **Calendar** tab on HuskyCT as well as the **Class Schedule** on HuskyCT so as not to miss any homework deadline.

Early submission bonus
We strongly recommend that you do not leave your homework to the last minute.
To encourage you start your work earlier rather than later, **for every correct answer turned in at least 24 hours before the deadline, you will get 25% bonus of the points for that question.**
This bonus will be counted as extra credits towards the final cumulative grades (so you can get at most 15x125%=18.75 for homework credits)

Format
Unless otherwise stated, the following will apply to each question part:

- You have maximally **5 attempts** for each question part to get the right answer.
- You should answer in precise fraction (for example, **1/6 rather than 0.166666**).
- If you cannot answer in precise fraction, your answer has to be **at least 6 decimal places precise, with correct rounding,** for example, **1/6 will round up to 0.166667, not 0.166666.** We strongly encourage not to round your answer and leave your answer with more than 6 decimal places.

Late Work Policy
WebAssign's automatic extension policy: You may request an extension up to **72 hours** after the due date with no penalty. Once you request an extension, you have up to **24 hours to finish the late homework**.
Two lowest WebAssign scores will be dropped.

SET Survey bonus:
If the class completion rate for the SET survey during the last week of classes reaches 70% completion, I will drop an additional 2 homework scores. This means your lowest 4 homework scores will not count towards your final grade.

WebAssign and Textbook Bundle
We will be using WebAssign for homework. You can find the links to the homework in the WebAssign folder**.** You can find more information here.

Everyone **has access to the WebAssign homework for the first 2 weeks of the semester**, so you can start immediately while you arrange for access and wait for your textbook/code order to arrive. **After the initial 14-day grace period, you will need have a WebAssign access code. If you subscribe to the bookstore bundle, WebAssign access should be included.**

WebAssign access is separate from Cengage Unlimited. You can get WebAssign access from the WebAssign code that comes with the textbook bundle from the bookstore, by buying a standalone access code, or by subscribing to Cengage Unlimited. Cengage Unlimited is an additional subscription that gives you access to unlimited courses, more textbooks, and extra study tools. If you know you'll be taking multiple classes that use WebAssign then Cengage Unlimited may be a good deal for you, but it is not necessary for our course.

Here are some links that may be useful:
How to Register for WebAssign in Blackboard
WebAssign Quick Guide

Exams

There will be 5 midterm exams held during the semester, plus a cumulative final exam.
Exams will be held online on HuskyCT and will be **open book and open notes**.
On the day of the exam, you can access the exam online any time **from 9am to 9pm**. Once you start the exam, you have **2 hours to finish.**

Exam questions will appear one at a time in **random order**, and you **must answer each question before moving on to the next – backtracking is not allowed**. **You have only 1 attempt, so make sure all of your answer is correct before you click "Next" button. Don't mix up with the "Submit" button that will submit your work prematurely.**

You may use a calculator (**NOT your phone**). You will also be allowed to access www.desmos.com to use the calculator if you prefer. Exam questions will appear one at a time in random order, and you must answer each question before moving on to the next – backtracking is not allowed.

Here is the detailed exam schedule:

- Midterm Exam 1, Tuesday February 17, 2026. Content: Chapter 4, Sections 4.1--4.7.
- Midterm Exam 2, Tuesday March 3, 2026. Content: Chapter 5, Sections 5.1--5.4.
- Midterm Exam 3, Tuesday March 24, 2026. Content: Chapter 6, Sections 6.1--6.4.
- Midterm Exam 4, Tuesday April 7, 2026. Content: Chapter F (Finance), Sections F.1--F.7.
- Midterm Exam 5, Tuesday April 28, 2026. Content: Chapters 1 and 2, Sections 1.1--1.4 and 2.1--2.2.
- Final Exam, **date TBD.** Content: Cumulative (including Chapter 3.)

Exams will be held online on HuskyCT and **you must use Respondus Lockdown Browser**. This is an online proctoring tool that requires a working webcam and microphone that will record your exam session. You must download Lockdown Browser before taking the first exam. After that, you can simply click on the link in HuskyCT and Lockdown Browser will open automatically. Lockdown Browser is required to verify your identity for the online course as per university policy. **If you have questions about how to download or use Lockdown Browser you can visit this page**. You can also complete the practice assignment to get a feel for what exams in Lockdown Browser will look like.

A practice test will be posted to HuskyCT before each exam. Please use the practice test to review the material and the exam format. You may retake the practice test as many times as you'd like, until 11:59pm the night before the exam window opens. **The practice tests are for practice and do not count in your average.**
Exam scores will be released on HuskyCT after the exam window ends, you may access your prior exams in HuskyCT by following the directions here.

No Late Exam Policy
No exam extensions will be allowed without significant **extenuating circumstances** (for example: travel for athletic competition) or **official Dean of Students approval**.
Some common reasons that will not be accepted as extenuating circumstances:

- Forgetting the exam day.
- **Bad internet connection, broken laptop, or not being able to access the internet.** (It is your duty to find a stable connection on exam days, especially for an online asynchronous course)
- **Severe sickness/ hospitalization without contacting your instructor before the exam window's end at 8pm, or failure to provide a doctor's note**.
- **Family emergency without contacting your instructor before the exam window's end at 8pm**
- Travel for leisure or wedding.
- Part time job that makes you access the exam late.

To account for any missed exams, at the end of the semester your **lowest exam score will be replaced by your final exam score, if it is higher.**

Course Requirements and Grading

Course grades will be calculated as follows:

- **WebAssign homework:** 15%, with 2 lowest homework scores dropped
- **Midterm Exams:** 12% each (60% total)
- **Final Exam:** 25%
- **Extra Credit:** Homework completed at least 24 hours will earn a 25% boost to that assignment's score. **Lowest midterm score will be replaced by the final exam score, if it is higher.**

Grading Scale
Note: The instructor has the full authority to adjust the cutoff. However, the cutoff will only be reduced, not increased. (For example, it can never be the case that your cumulative grade is 94 and still receive an A-).

Grade	Letter Grade	GPA
93-100	A	4.0
90-92.99	A-	3.7
87-89.99	B+	3.3
83-86.99	B	3.0
80-82.99	B-	2.7
77-79.99	C+	2.3

73-76.99	C	2.0
70-72.99	C-	1.7
67-69.99	D+	1.3
63-66.99	D	1.0
60-62.99	D-	0.7
<60	F	0.0

Extra Credits

Student can earn up to 15 x 25% = 3.75 points of extra credit for early online homework submission. (See the sections "Homework" and "Late work policy")

Student Responsibilities and Resources

As a member of the University of Connecticut student community, you are held to certain standards and academic policies. In addition, there are numerous resources available to help you succeed in your academic work. Review these important standards, policies and resources, which include:

- The Student Code
  - Academic Integrity
  - Resources on Avoiding Cheating and Plagiarism
- Copyrighted Materials
- Credit Hours and Workload
- Netiquette and Communication
- Adding or Dropping a Course
- Academic Calendar
- Policy Against Discrimination, Harassment and Inappropriate Romantic Relationships
- Sexual Assault Reporting Policy

Students with Disabilities

The University of Connecticut is committed to protecting the rights of individuals with disabilities and assuring that the learning environment is accessible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, please let me know immediately so that we can discuss options. Students who require accommodations should contact the Center for Students with Disabilities, Wilbur Cross Building Room 204, (860) 486-2020 or http://csd.uconn.edu/.

Software/Technical Requirements (with Accessibility and Privacy Information)

The software/technical requirements for this course include:

- HuskyCT/Blackboard (HuskyCT/ Blackboard Accessibility Statement, HuskyCT/ Blackboard Privacy Policy)
- Adobe Acrobat Reader (Adobe Reader Accessibility Statement, Adobe Reader Privacy Policy)
- Google Apps (Google Apps Accessibility, Google for Education Privacy Policy)
- Microsoft Office (free to UConn students through uconn.onthehub.com) (Microsoft Accessibility Statement, Microsoft Privacy Statement)
- Dedicated access to high-speed internet with a minimum speed of 1.5 Mbps (4 Mbps or higher is recommended).
- WebCam
- Ability to scan handwritten work in as a PDF (apps like CamScanner are acceptable)

For information on managing your privacy at the University of Connecticut, visit the University's Privacy page.

NOTE: This course has NOT been designed for use with mobile devices.

Help

Technical and Academic Help provides a guide to technical and academic assistance.

This course is completely facilitated online using the learning management platform, HuskyCT. If you have difficulty accessing HuskyCT, you have access to the in person/live person support options available during regular business hours through the Help Center. You also have 24x7 Course Support including access to live chat, phone, and support documents.

Minimum Technical Skills

To be successful in this course, you will need the following technical skills:

- Use electronic mail with attachments.
- Save files in commonly used word processing program formats.
- Copy and paste text, graphics or hyperlinks.
- Work within two or more browser windows simultaneously.
- Open and access PDF files.
- Create PDF files of handwritten work.

University students are expected to demonstrate competency in Computer Technology. Explore the Computer Technology Competencies page for more information..