COURSE SYLLABUS FOR MATH FOR BUSINESS & ECONOMICS

Semester: SPRING 2025
Department: Mathematics
Course Name: MATH 1305

Lecture Time: Tuesdays & Thursdays, Center for the Sciences and Innovation (CSI) 104

- **Section 1:** 9:55 AM – 11:10 AM
- **Section 2:** 11:20 AM – 12:35 PM

Instructor: Dr. Hoa Nguyen (she/her/hers)

- Email: hnguyen5@trinity.edu

Dr. Nguyen's Office Hours:

- Tuesdays: 1:00 – 2:00 PM (in person, MMH 115G)
- Thursdays: 8:30 – 9:30 AM (in person, MMH 115G)
- By appointment (in person or Zoom)

Peer Tutors & Office Hours:

- [PEER TUTOR NAME]: Mondays & Wednesdays (4:00 – 6:00 PM, MMH 140) & Tuesdays (5:00 – 7:00 PM, MMH 140)
- Anna Knickel: Mondays & Wednesdays (6:00 – 8:00 PM, MMH 140)

Anna is available during class as well as her office hours while [PEER TUTOR NAME] is only available during her office hours.

Please attend my office hours or the peer tutors' office hours whenever you need help. These times are reserved specifically for our class, and we're here to support you with any challenging material.

Course Objectives:
This course aims to cover mathematical concepts such as functions, graphs, linear systems, optimization, and their applications in business, finance, and economics. By mastering these topics, students will:

1. Represent and solve problems using mathematics.
2. Communicate quantitative results effectively.
3. Appreciate the limitations and strengths of mathematical models.

Prerequisites: none

Textbook: *Applied Mathematics for the Managerial, Life, and Social Sciences (7e)* by Tan. The whole package including the eBook and online homework assignments must be purchased on WebAssign.

Course Content & Schedule

The course includes topics like Math Modeling using basic functions, Mathematics of Finance, linear programming, derivatives, optimization, and regression analysis. **A detailed schedule is posted at this link.**

Notable dates include:

- Test 1: Thursday 2/13/2025 (during class time, CSI 104)
- Test 2: Thursday 3/27/2025 (during class time, CSI 104)
- Poster Session: Thursday 4/10/2025 (during class time, CSI 282)
- Final Exam: Saturday 5/10/2025 3:30-6:30 PM. Room: CSI 282 (the same room where you presented your poster)

Calculators may be used on homework and tests.

Attendance & Participation

Regular attendance is crucial. If you are unwell, email me promptly and arrange to catch up. Missing more than three classes without a valid excuse will result in a failing grade. Participation includes:

- Active involvement in discussions and problem-solving.
- Group work or optional independent assignments for those opting out of group work.
- Quick polls during class breaks to assess pacing and understanding.
- Mini-surveys throughout the semester to gather students' feedback on their experiences with the course content and project work.

I will post lecture notes on Canvas before each class so you can access all the information and examples, even if you miss a lecture. This also lets you focus on the in-class explanations.

Classroom Dynamics

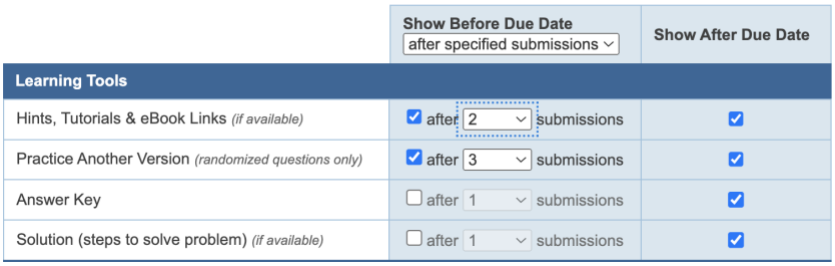
The course fosters an inclusive, respectful environment. Students uncomfortable with speaking in front of class or board work can email me in advance to opt out.

Technology Use

You may use a laptop for note-taking, Canvas, and WebAssign, but only for class-related activities. Cell phones are not allowed during class.

WebAssign Homework

WebAssign will be used for weekly auto-graded assignments, with up to 7 submission attempts. Below is the setting:



	Show Before Due Date (after specified submissions)	Show After Due Date
Learning Tools		
Hints, Tutorials & eBook Links *(if available)*	☑ after 2 submissions	☑
Practice Another Version *(randomized questions only)*	☑ after 3 submissions	☑
Answer Key	☐ after 1 submissions	☑
Solution (steps to solve problem) *(if available)*	☐ after 1 submissions	☑

For the first two, focus on independent problem-solving instead of relying on “tutorials” or “practice another version.” These tools are enabled for later attempts to help correct misconceptions, but relying solely on them can hinder deeper understanding and lead to struggles on tests.

For a balanced approach, visit office hours (mine or the peer tutors') when you have 2-3 attempts left. If office hours don’t fit your schedule, email me to arrange a time. Additionally, I’ll post a weekly video tutorial on Canvas explaining a challenging problem from the assignment to support your learning.

Key policies:

- Assignments are posted on Tuesdays at 1:00 PM and due on Thursdays of the following week at 9:30 AM.
- Start assignments early and seek help from me or peer tutors as needed to reduce stress.
- Extensions can be requested directly in WebAssign with justification. You’re not allowed to use “View Key” before you request an extension.

Extra Credit Quizzes: Optional quizzes are available during peer tutor office hours (Mondays & Wednesdays, 4:00–8:00 PM, Tuesdays, 5:00–7:00 PM) and my office hours (Tuesdays, 1:00–2:00 PM; Thursdays, 8:30–9:30 AM). Each quiz covers prior homework and offers up to 2 points. Extra credit earned will be added to the corresponding test.

Exams & Feedback

- Tests will prioritize conceptual understanding with detailed, real-world applications. Partial credit will be provided where applicable.
- A full solution key will be shared post-test. Students are encouraged to compare and follow up for clarifications.
- No early or makeup tests without documented justification.

Poster Presentation

You will work with a group of 3-4 students. On Thursday 4/3, each group will select a topic, propose a related real-world problem, and submit it for my approval. Once approved, your group will develop a solution, create slides, and assign tasks for each member based on my feedback.

Despite the name, your presentation will use slides. Finalized slides will be printed on Wednesday, 4/9, and displayed on a poster board at CSI 282 by Thursday, 4/10. During your class time, your group will present to visiting high school students, with each member required to clearly explain the problem and solution. To help you prepare, we'll have a practice presentation in class on Tuesday, 4/8. Note that faculty judges from the departments of Finance and Business Analytics, Business Administration, Accounting, and Economics will be invited to your presentation.

For grading purposes, students will outline their individual contributions to the project and the overall team effort in the submitted slides. Faculty judges will assess each team member's understanding of the project by asking individual questions.

Grading Policy

Grading weights:

- Attendance & Participation (A): 5%
- Homework (H): 20%
- First Midterm Test (M1): 20%
- Second Midterm Test (M2): 20%
- Poster Presentation (P): 15%
- Final Exam (FE): 20%

So, numerical course grade is determined on the following formula:

$$(0.5*A + 2.0*H + 2.0*M1 + 2.0*M2 + 1.5*P + 2.0*FE)/10$$

Letter grades follow standard thresholds: A: 90 - 100, B: 80 - 89, C: 70 - 79, D: 60 - 69, F: 0 - 59. Plus/minus grades will be assigned as per University policy.

Support & Resources

Students are encouraged to seek support early. Available resources include:

- Office hours with Dr. Nguyen and peer tutors.
- Quantitative Reasoning and Skills Center (drop-in tutoring)
- Accessibility accommodations via Student Accessibility Services
- Trinity Resource Sheet

For more, visit a summary of the University Policies.

Note: This syllabus may be adjusted to better meet course objectives. Updates will be shared via Canvas and email.