Math 371 (Intro to Machine Learning)
Section 1 – Spring 2025
TuTh 11:00am – 12:15pm in YR 123

Professor: Christopher Cornwell
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Website: https://github.com/cornwell/math371-S25/
Office Hours: Tues 1:00 - 2:00 pm, Wed 10:30 am - noon.

Coursework: A final exam, two midterm exams, regular homework and in-class assignments.

The **final exam** is scheduled to take place in YR 123 on Thursday 5/15, 12:30-2:30 pm.

Exams. The in-class midterm exams are planned for Thursday, March 6 and Thursday, April 17. (More tentative about the second date; might be up to one week later.) The final exam is scheduled as above.
Exams are to be completed individually, using only the resources that have been allowed by the instructor.

Homework assignments. Homework assignments this semester will consist of a mix of written work and Jupyter notebooks. Often, the Jupyter notebooks will require some written explanation of code that was used. There will be three homeworks in most months.
When appropriate, commentary should accompany submitted code to improve readability and will be considered as part of what I grade. Additionally, for a homework assignment that involves coding, you should submit your Jupyter notebook file as well as a static PDF export of the notebook – showing, in addition to the code, your answers and any needed output.

Graded classwork. Periodically, during class, we will get in groups to discuss prompts that have been given. You will be asked to write on the discussion that your group has and submit it after class.

Expectations on assignments. On both your classwork and homework, I expect that you will talk with others and use other resources to help you complete the assignment. I encourage this, but ask that you be upfront with me about the details. In other words,

- I expect that you will talk to each other while completing your work.

- I expect that you will google definitions and look at online resources, like Stack Overflow.

- I expect you to have a sentence or short paragraph in your submitted work about the people and resources that you used. This includes generative AI – AI assistants or chatbots (see more on this below).

  Example: *I worked on a lot of the assignment with Joan Birman. When working on exercise 3, to reformat our data we got an idea from a stack overflow thread, "Convert image (png) to matrix and then to 1D array". I also learned more about the MNIST data set from Wikipedia and a summary given by Copilot.*

- I expect your work to be *yours.* It should not be a copy of the work of someone (or something) else.

  This does not mean all the ideas originated from you. It means that you worked to internalize the ideas and, in the end, you chose how to organize it and sat down to "put pen to paper."

  Copying someone else's work, without acknowledging that you did so, is an academic integrity violation.

Grading scheme:

Classwork	Homework	2 Midterms	Final Exam
10%	30%	30%	30%

Some advice: *How* you complete assignments throughout the semester will have great influence on your ability to do well on exams. Concepts are **at least as important** as procedures. Make sure that you

are spending significant amounts of time thinking not only about *what* we did in class (or on assignments), but also about *why* we did it that way, about what the end goals were and whether there were alternative approaches. I am happy to discuss these questions with you.

By all means, complete everything in the assignments, but don't stop there!

Missed work: There will not be make-up work for in-class assignments. However, if something prevents you from attending and completing the assignment, contact me as soon as possible about it. Exemptions will be made based on university policies.

Homework should be submitted on time. Make time to think about assignments that will be due the following week. Start on it early whenever you can! Contact me if you cannot turn it in by the due date.

Acceptable use of AI assistants: This course is about machine learning and so it has a close relationship to the use of AI. Due to the extremely fast emergence of AI assistants, we are all still learning what it means to use them thoughtfully and ethically. During class, some of the prompts in group discussions will be about the use of AI.

Academic Integrity. The consequence of any student submitting copied work will be determined based on the circumstances, but may include a grade of 0 for the assignment or exam.

Students are expected to be familiar with TU's Student Academic Integrity Policy, especially the sections that define plagiarism, cheating and complicity (II.B–II.E) and describe the possible grade penalties (V.C).

Accessibility and Disability Services (ADS). This course is in compliance with Towson University policies for students with disabilities. Students with disabilities are encouraged to register with ADS at:

> University Union, Suite 146
> 410-704-2638.

Students who expect that they have a disability but do not have documentation are encouraged to contact ADS (see the ADS website) for advice on how to obtain appropriate evaluation. A memo from ADS authorizing your accommodation is needed before any accommodation can be made.

Diversity. In accordance with TU, FCSM, and departmental objectives, everyone in this course is expected to be respectful of each other without regard to race, class, linguistic background, religion, political beliefs, sex, gender identity or expression, sexual orientation, ethnicity, age, veteran status, or physical ability. If you feel that these expectations have not been met, please, contact Dr. Felice Shore, email: `fshore@towson.edu`.