CSCI 416/516 Introduction to Machine Learning

**Instructor**: Ashley (Ye) Gao

**Email**: [ygao18@wm.edu](mailto:ygao18@wm.edu)

**Office hours**: See course website

**Lecture time/location**: See course website

**Course website**: <https://lindagaw.github.io/courses/CSCI416/CSCI416.html>

**Piazza signup**: <https://piazza.com/wm/fall2023/csci416516>

**Overview**:

* Machine learning (ML) is a set of techniques that allow computers to learn from data and experience, rather than requiring humans to specify the desired behavior by hand. ML has become increasingly central both in AI as an academic field, and in industry. This course provides a broad introduction to some of the most commonly used ML algorithms. It also serves to introduce key algorithmic principles which will serve as a foundation for more advanced courses, such as Deep Learning.

**Grading**:

* Homework #1: 15 pts
* Homework #2: 15 pts
* Homework #3: 15 pts
* Midterm: 15 pts
* Final Exam: 20 pts
* Final Project: 20 pts

Final letter grades will be given based on the following scale. A >= 93% > A- >= 90% > B+ >= 85% > B >= 80% > B- >= 75% > C+ >= 70% > C >= 65% > C- >= 60% > D+ >= 55% > D >= 53% > D- >= 50% > F

Grades may be curved at the instructor’s discretion.

**Exams**:

* Exams will be closed-book and held during class hours but you are allowed an one-sided cheat sheet. Focus will be placed on material introduced during lecture. More details will be provided during the term.
* Missed exams will get a score of 0 except in the case of a valid medical reason or prior approval by the instructors.

**Homeworks**:

* There will be 4 homeworks in this course. The assignments will be released on the course webpage. Homeworks will be collected during lectures at the due dates posted on the course website.
* Format: We encourage typesetting using LATEX, but scans of handwritten solutions are also acceptable as long as they are legible
* Late submissions: Homeworks will be accepted up to 4 days late, but 10% will be deducted for each day late, rounded up to the nearest day. No credit will be given for assignments submitted after 4 days. Extensions will be granted only in special situations with valid proof (e.g. Doctor’s note).
* Collaboration policy: Each student is responsible for their own work. Discussions on homeworks are allowed, but students should write their own submissions solely by themselves. Write down the name and email of every student you’ve discussed with on each homework.