

CS-6375 Machine Learning, Spring 2025

Saturday 11:00 AM - 1:45 PM, Room **ECSS 2.410**

Instructor: Crystal Maung

Office:

Office Hours:

- Saturday, Immediately after class

Telephone:

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TA: TBA

Office:

Office Hours:

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Telephone:

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Course Description

Texts

Required Text

Most of the material will be covered from class-notes with selected parts taken from sources available on the web.

There is no required text.

Other material

- T. M. Mitchell. Machine Learning. 1997.
- E. Alpaydin. Introduction to Machine Learning. 2004.
- T. Hastie, R. Tibshirani, and J. Friedman. The Elements of Statistical Learning. 2011. <http://www-stat.stanford.edu/tibs/ElemStatLearn/>

Important Dates

- Census day (Last day to drop without a W: February 5, 2025).
- Spring break: Monday, March 17 Sunday, March 23 (no class).
- Test 1: March 8, 2025.
- Test 2 : May 10, 2025.
- Course Grades Available : May 21, 2025.

Grading Policy

- Attendance: 5%. (You are allowed to miss 2 classes.)
- Quizzes: 5%. (2 lowest quizzes grades will be ignored.)
- Homework: 10%. (You must attempt to answer every single questions to get the credit.)
- Test 1: 20%.
- Test 2: 20%.
- Project 1: 10%.
- Project 2: 15%.
- Project 3: 15%.

Topics

- Decision Trees
- Neural Networks
- Deep Learning
- Evaluation of Learning Algorithms

- Bayesian and Naive Bayesian Learning
- Nearest Neighbor Algorithms
- Computational Learning Theory
- Support Vector Machines.
- Reinforcement Learning
- Unsupervised learning and clustering
- LLM and Generative models

Pre-requisites

- Pre-requisite: CS-5343

Software

Additional Policies

- All exams and quizzes are open books and notes.