# EE 370000 機器學習導論 INTRODUCTION TO MACHINE LEARNING

**Instructor: 李祈均 (cclee@ee.nthu.edu.tw)**

**Date: M3M4W2**

**TA:**

吳亞澤: crowpeter@gapp.nthu.edu.tw

Shreya Upadhyay: ShreyaUpadhyay10@gmail.com

許柏謙: billy73480@gmail.com

**Textbook**

Introduction to Machine Learning, Fourth Edition, Ethem Alpaydin

**Course Outline**

**Section 1**

Introduction to Machine Learning

Supervised Learning

Bayesian Decision Theory

Parametric Model

Multivariate Methods

---

**Section 2**

Clustering/Dimension reduction

Decision tree

Linear Discrimination

Support Vector Machine

---

**Section 3**

Multilayer Perceptron

Deep learning

Design and Analysis of Machine Learning Experiment

---

**Invited Lecture**

Nvidia DLI Fundamental of deep learning – Hands on lecture (深度學習系列實作坊)

Invited Talk

**Grading:**

3 Homework (13% each)

1 Midterm (20%)

1 Final (35%)

Nvidia Hand-on exercise (6%)

**Tentative Schedule**

9/13 9/15 Class logistics, Intro to ML

~~9/20~~ 9/22 Supervised Learning

9/27 9/29 Bayesian Decision Theory

10/4 10/6 Parametric Model, Multivariate Method

~~10/11~~ 10/13 Review of Section 1

10/18 10/20 TA session, Clustering

10/25 10/27 Dimension Reduction, Decision Tree

11/1 11/3 Linear Discrimination, Support Vector Machine

11/8 11/10 Review of Section 2, TA session

11/15 ~~11/17~~ Multilayer Perceptron

11/22 ~~11/24~~ Midterm,

11/29 12/1 Multilayer Perceptron, Deep Learning

12/6 12/8 Deep Learning, Deep Learning

12/13 12/15 Design of ML Experiment, TA session

12/20 12/22 Nvidia DLI

12/27 12/29 Nvidia DLI

1/3 1/5 Invited Talk, Review

*cross-out means no class

**Midterm: November 22nd**

**Final: January 10th**