

# NTU 922 U0960: Machine Learning

Hsuan-Tien Lin

Dept. of CSIE, NTU

Course Introduction, 09/14/2009

## Only English

- English teaching
- English homework writing
- English email communications
- English forum discussions
- exception: Mandarin face-to-face discussions

If you are not comfortable with **English-teaching** classrooms, ...

### Complicated Contents

- from a Taiwanese student taking MIT ML class (translated):  
*The professor started writing math equations as if he was using some writing accelerator. After class I always felt feeble. The worst part is: I needed to understand the contents as soon as I can. Otherwise I cannot finish the homework and cannot follow up in the next class.*
- NTU ML class: designed to be **as good as** the best classes in the world
- similar things may happen to you

If you are not willing to be so **miserable**, ...

## Strict Instructor

- Will you give me a second chance if I copy homework from other people? **NO**.
- Could you let me pass because I will be kicked out by the 1/2 rule? **NO**.
- Will you change my score from 59 to 60? **NO**.
- Will you tolerate me to turn in my homework 10 minutes late? **NO**.
- How many will pass? **Any**, if necessary.

If you do not like a **strict** instructor, ...

## Huge Loads

- also from the Taiwanese student taking MIT ML class (translated):  
*Every homework set is similar to three normal ones in NTU.  
I devoted my whole Mid-Autumn Festival to homework 1.*
- ours last year: two to three times harder than a normal one in NTU
- ours this year: **three to five** times harder than a normal one in NTU
- around eight homework sets (and a hard final project)
- homework due within a week
- even have homework 0
  - already hard
  - **no need to submit**

If you do not want to spend **so much time on homework**, ...

## Experimental Design

- only the second year of this class
- last year: good but always room for improvement
- instructor willing to do **experiments**:
  - harder homework
  - more loads (reading assignments this year)
  - book writing (we'll talk about this)
  - board writing and/or slides
  - syllabus
- always **risky** to be in an experimental class

If you do not want be the “**lab rat**”, ...

May the Brave Ones Stay

# Basic Information

- instructor: Hsuan-Tien Lin ([htlin@csie.ntu.edu.tw](mailto:htlin@csie.ntu.edu.tw))
- office hour: after class or by appointment
- course webpage: <https://ceiba.ntu.edu.tw/981ML>  
announcements, homework, reference handouts, discussion forum, etc.
- mailing list: supported by CEIBA

**Update your secondary email address on CEIBA!**



# Special Things about ML2009

- instructor to be **married** in November, may take two weeks off  
—invited guest lecturer: Prof. Shou-de Lin
- instructor is writing a **book** on ML, will request your feedback  
—we'll talk more about this

- at most 96 in Room 104
- limited 60 before the second round
- the other 36: my students, Prof. Shou-de Lin's students, and **special cases**
  - send me an email saying why you should be the “special case”
- auditing: welcomed (to sit) only if there is an empty chair

**Drop as soon as possible!**  
**Give your motivated classmates a chance to be miserable.**

# Teaching Assistants

- Chun-Wei Liu and others (`email_to_be_announced`)
- special TA hour for homework 0: 9/17 (Thursday), noon–2pm, Room TBA
- regular TA hour: TBA

**Go to TA hours to discuss with TAs and classmates!**

## *Learning from Data*

Y. Abu-Mostafa (Caltech), M. Ismail-Madgon (RPI), H.-T. Lin (NTU)

- idea initiated during ML2008
- about 6 chapters out of 19 finished, 4–5 more coming in this term
- teaching with the book, many homework problems within the book, reading assignments within the book

# More about the Book

*book forum and downloading* : <http://book.caltech.edu>

## Your Privileges

- learn from the **first draft** of the book
- download the book the draft **freely**

## Your Responsibilities

- discuss with Caltech and RPI students **actively** on the forum
- comment about the on the forum **bravely**
- **do not distribute the draft**

**enrolling in this class means agreeing to the items above**

Taking any unfair advantages over other class members is not allowed. It is everyone's responsibility to maximize the level of fairness.

- eating? fine, but no smells and no noise
- sleeping? fine, but no snoring
- cellphone? fine, but silent mode, and speak outside
- ...

**applies to instructor, TAs, students**

**NO CHEATING**

**NO LYING**

**NO PLAGIARISM**

**NO PIRATING of THE BOOK**

**very serious consequences**

- no midterm, no final
- main reference: homework sets, final project
- supplementary reference: participation in discussions



# Collaboration and Open-Book

- homework discussions: encouraged
- but fairness?  
**write the final solutions alone and understand them fully**
- references (books, notes, Internet):  
consulted, but **not copied from**
- no need to lend/borrow solutions

to maximize fairness (everyone's responsibility),  
**lending/borrowing not allowed**

# Collaboration and Open-Book

to maximize fairness (everyone's responsibility),  
**lending/borrowing not allowed**

to maximize fairness (everyone's responsibility),  
**lending/borrowing not allowed**

to maximize fairness (everyone's responsibility),  
**lending/borrowing not allowed**

Deal? If your classmate wants to borrow homework from you,  
what do you say?

- students: justify solutions clearly
- TAs: evaluate solutions fairly
- penalty for late “parts”:  
90% of value for 12-hour late, 80% one-day late, ...

**10-min late is 12-hour late**

# Programming Assignments

- about a third or half of the problems
- any programming language, any platforms
- upload source code, otherwise:  
10% of value only!
- **no sophisticated packages**

students' responsibility:

**ask TA in advance for what can/cannot be used**

# Important TODOs

- Update your secondary email address on CEIBA!
- Sign the agreement form, and register on the forum (wait for approval).
- Do homework 0 and go to the TA hour for questions.
- If you still want to sign up, send me an email first.

**May the Brave Ones Stay**

# One More Note on Discussions

- book discussion: <http://book.caltech.edu>  
—English
  - introduce yourself
  - download the sections and discuss
- class discussion: within <https://ceiba.ntu.edu.tw/981ML>  
—English
- email discussion: [htlin@csie.ntu.edu.tw](mailto:htlin@csie.ntu.edu.tw) and TAs (TBA)  
—English
- face-to-face discussion: office hour with instructor, or TA hour  
—Any language that we know

**Questions?**