

know  
the  
rules

Course Logistics  
Feb 19<sup>th</sup>, 2019

# Applied Deep Learning

YUN-NUNG (VIVIAN) CHEN [HTTP://ADL.MIULAB.TW](http://ADL.MIULAB.TW)



國立臺灣大學  
National Taiwan University



# Course Logistics

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# Course Logistics

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Instructor: 陳縉儂 Yun-Nung (Vivian) Chen

Time: Tuesday 234, 9:10-12:20

Location: 資104

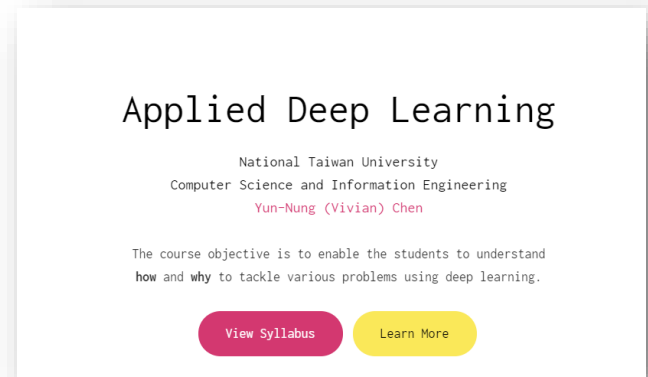
Website: <http://adl.miulab.tw>

NTU COOL: <https://cool.ntu.edu.tw/courses/175/>

Email: [adl-ta@csie.ntu.edu.tw](mailto:adl-ta@csie.ntu.edu.tw)

- To ensure timely response, email title should contain “[ADL2019]”
- Do NOT send to our personal emails

Always check the up-to-date information from the website



# NTU COOL

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## 新的課程平台: NTU COOL

- 課程側錄上傳
- 作業手寫題直接上傳繳交 (還可以寫 code 呢!)

## 強大的助教團隊

- 論壇郵件回信
- TA Recitation
- TA Hours



# Course Goal

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The students are expected to understand

1. how deep learning works
2. how to frame tasks into learning problems
3. how to use toolkits to implement designed models, and
4. when and why specific deep learning techniques work for specific problems

# Pre-requisites

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## Course

- Required: college-level calculus, linear algebra
- Preferred: probability, statistics

## Programming

- proficiency in Python; all assignments will be in Python
- GitHub; all assignments will be handed in via GitHub
- Kaggle; all assignments will be submitted to Kaggle



([tutorial](#) from Stanford)



([tutorial](#))



([website](#))

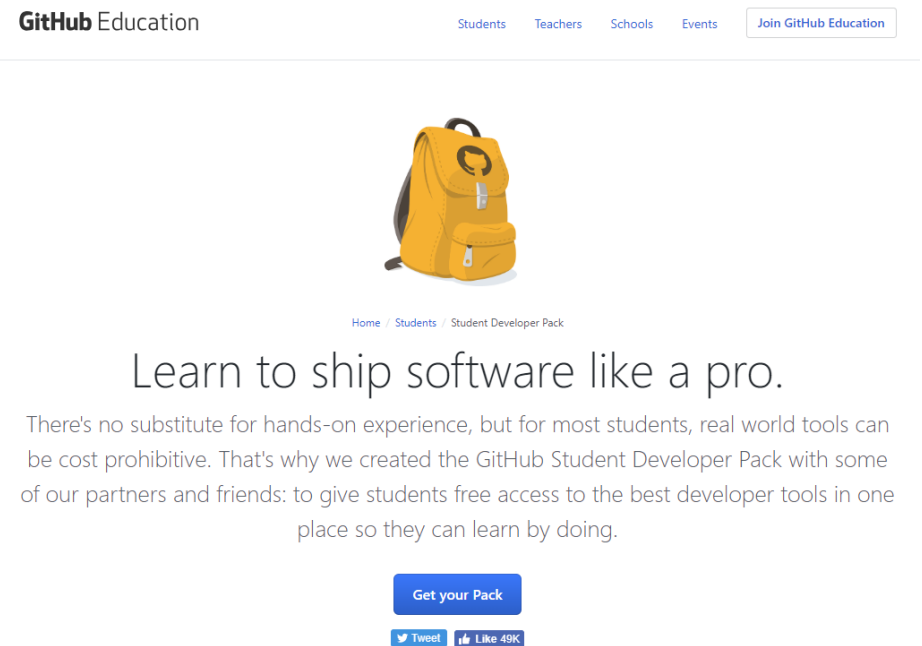
GPU resources are LIMITED, so please consider your available resources for taking this course

# GitHub Student Pack

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The [student plan](#) provides unlimited private repositories

- make your assignments private before the due date
- make them public afterwards



The screenshot shows the GitHub Education website. At the top, there is a navigation bar with the text "GitHub Education" on the left and links for "Students", "Teachers", "Schools", "Events", and a "Join GitHub Education" button on the right. Below the navigation bar is a large yellow backpack icon. Underneath the icon is a breadcrumb trail: "Home / Students / Student Developer Pack". The main heading reads "Learn to ship software like a pro." followed by a paragraph: "There's no substitute for hands-on experience, but for most students, real world tools can be cost prohibitive. That's why we created the GitHub Student Developer Pack with some of our partners and friends: to give students free access to the best developer tools in one place so they can learn by doing." At the bottom of the page, there is a blue "Get your Pack" button, and below it are social media sharing buttons for "Tweet" and "Like 49K".

# Grading Policy

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4 Individual Assignment:  $18\% \times 4 = 72\%$

- GitHub code w/ README
  - The score is given based on the ranking list
  - Bonus points for outstanding performance
  - **Late policy: 25% off per day late afterwards**

Final Group Project: 25%

- GitHub code, Project document
  - Bonus points for the outstanding work

Others: 5%

- Write-up for the guest lecture/company visit

Understanding the difference between “collaboration” and “academic infraction”



# Individual Assignments

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A1. Dialogue Modeling



A2. Word Representation



A3. Game Playing



A4. Conditional Generation

# Final Group Project (2~5 persons)

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Choose your preferred project topic

- Proposal (**BONUS!**): submit your proposal
  - Get additional bonus if other groups choose the same the proposed topics
- Presentation
  - Poster presentation
  - Outstanding projects will be selected for company-sponsored awards/prizes
- Project Report & Code
  - Wrap-up project report
  - GitHub code submission w/ README



The project details will be announced later

TEAM  
WORK

# How to Get the Registration Code?

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Limit: ~100 students per course

## Requirements

- Available GPU Resources
- Programming skills
- Fill in the [Google Form](#)

## Selection order if out of limit

- EECS Graduate = EECS (4-yr up) > EECS Others > Others



深度學習及其應用  
科目流水號：  
加選授權碼：  
授課教師：陳縉儂

# Tentative Schedule

Week	Topic	Assignment
1 2019/02/19	Course Logistics & Introduction	
2 2019/02/26	Neural Network Basics & <i>Guest Lecture by Dr. Yang</i>	
3 2019/03/05	Backpropagation + Word Representations	A1 – Dialogue Modeling
4 2019/03/12	Recurrent / Recursive Neural Networks	
5 2019/03/19	TA Recitation	A2 – Word Embeddings
6 2019/03/26	Attention Mechanism	
7 2019/04/02	Spring Break	
8 2019/04/09	Word Embeddings + Contextual Embeddings	A3 – Game Playing
9 2019/04/16	<i>Company Workshop</i>	
10 2019/04/23	Convolutional Neural Networks	
11 2019/04/30	Deep Reinforcement Learning	A4 – Conditional Generation
12 2019/05/07	Deep Reinforcement Learning	
13 2019/05/14	Break	
14 2019/05/21	Generative Adversarial Networks	
15 2019/05/28	Generative Adversarial Networks	
16 2019/06/04	Break	
17 2019/06/11	Unsupervised Learning	
18 2019/06/18	Final Project Presentation	

# Teaching Assistant Team

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# Rules

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Asking questions is encouraged!!

Any comment or feedback is preferred!!  
(speed, style, etc)



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❤️  
T.A

Going to TA hours!!