

Course Requirements of Introduction to AI





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Web (www.aiotlab.org/teaching/intro2ai.html)

INTRODUCTION TO ARTIFICIAL INTELLIGENCE 人工智慧概論

 Taipei Tech 人工智慧概論

 Playlit

Topic	Learning Objectives	Slides	Code	Video
Course Requirements	<ul style="list-style-type: none">• Quizzes (20%)• Midterm & Final exam (50%)• Final project (30%)	pdf		
Textbooks & Reference	<ul style="list-style-type: none">• Google Machine Learning Crash Course• 陳昇璋 & 溫怡玲, "人工智慧在台灣：產業轉型的契機與挑戰", 2019• 人工智能基礎 (高中版), 華東師範大學出版社, 2018• 人工智慧導論, 鴻海教育基金會, 2019			
0 Past, Present, and Future of AI 人工智慧的前世今生與未來	<ul style="list-style-type: none">• 釋放你的想像力!• Free your imagination to unleash your potential			
1 What is AI? 人工智慧是什麼?	<ul style="list-style-type: none">• What is AI?• Machine Learning• Deep Learning• Latest AI Applications	pdf		

YouTube Playlist

- <https://www.youtube.com/playlist?list=PL3S3ZnDPwJ-Oig3n-pylzPCFaDpZwkOxG>

The screenshot shows a YouTube playlist interface. On the left, there is a navigation sidebar with icons for Home, Explore, Subscriptions, and Library. The main content area features a video player for the first video in the playlist, titled 'Taimei Tech 人工智慧概論' (Taimei Tech Introduction to AI), with a 'PLAY ALL' button. Below the video player, the playlist title 'Taimei Tech 人工智慧概論' is displayed, along with the number of videos (13), views (390), and the creator's name 'Kuan-Ting Lai'. The playlist list on the right contains the following videos:

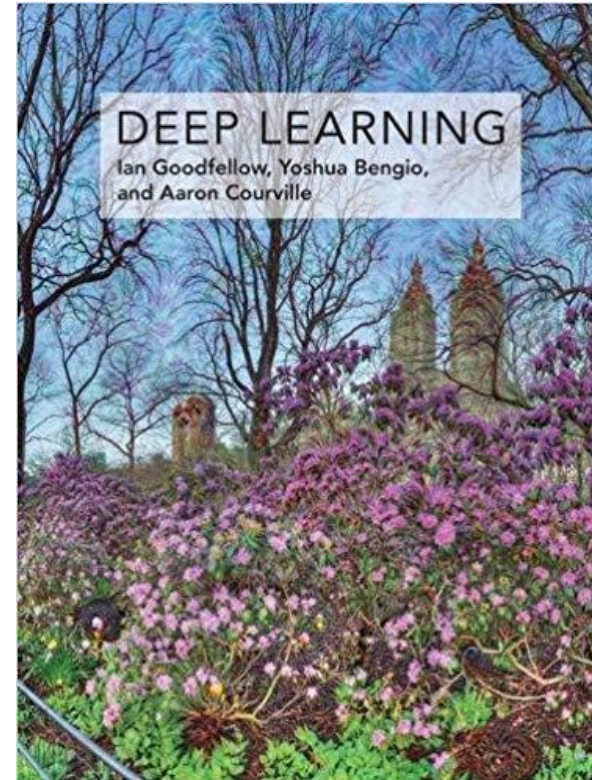
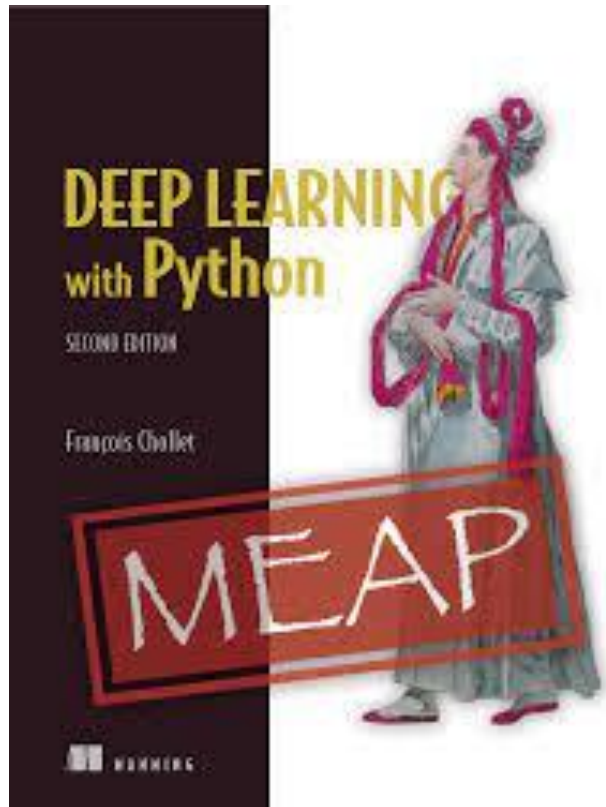
- 1 unavailable video is hidden
- Sort
- 人工智慧概論簡介 (Introduction to AI) - Kuan-Ting Lai, 1:27
- AI & Future - Kuan-Ting Lai, 57:20
- What is AI? - Kuan-Ting Lai, 1:29:23
- 機器學習簡介 (Introduction to Machine Learning) - Kuan-Ting Lai, 1:14:07
- 機器學習中的數學 (Applied Math for Machine Learning) - Kuan-Ting Lai, 1:00:15
- 監督式學習 (Supervised Learning) - Kuan-Ting Lai, 48:17

Course Requirements (under rolling correction)

- Quizzes (20%)
- Exam (50%)
 - $\max(\text{Midterm}, \text{Final exam})$ (15%)
- Final Project (30%)
 - Team members (1 ~ 4)
 - YouTube demo video

Textbooks & References

- Francois Chollet, “Deep Learning with Python, 2nd Edition” Manning, 2021
- Ian Goodfellow, Yoshua Bengio, and Aaron Courville, “Deep Learning,” MIT Press, 2017
- Latest publications on Nature, CVPR, NIPS, ICML, AAAI, ICLR



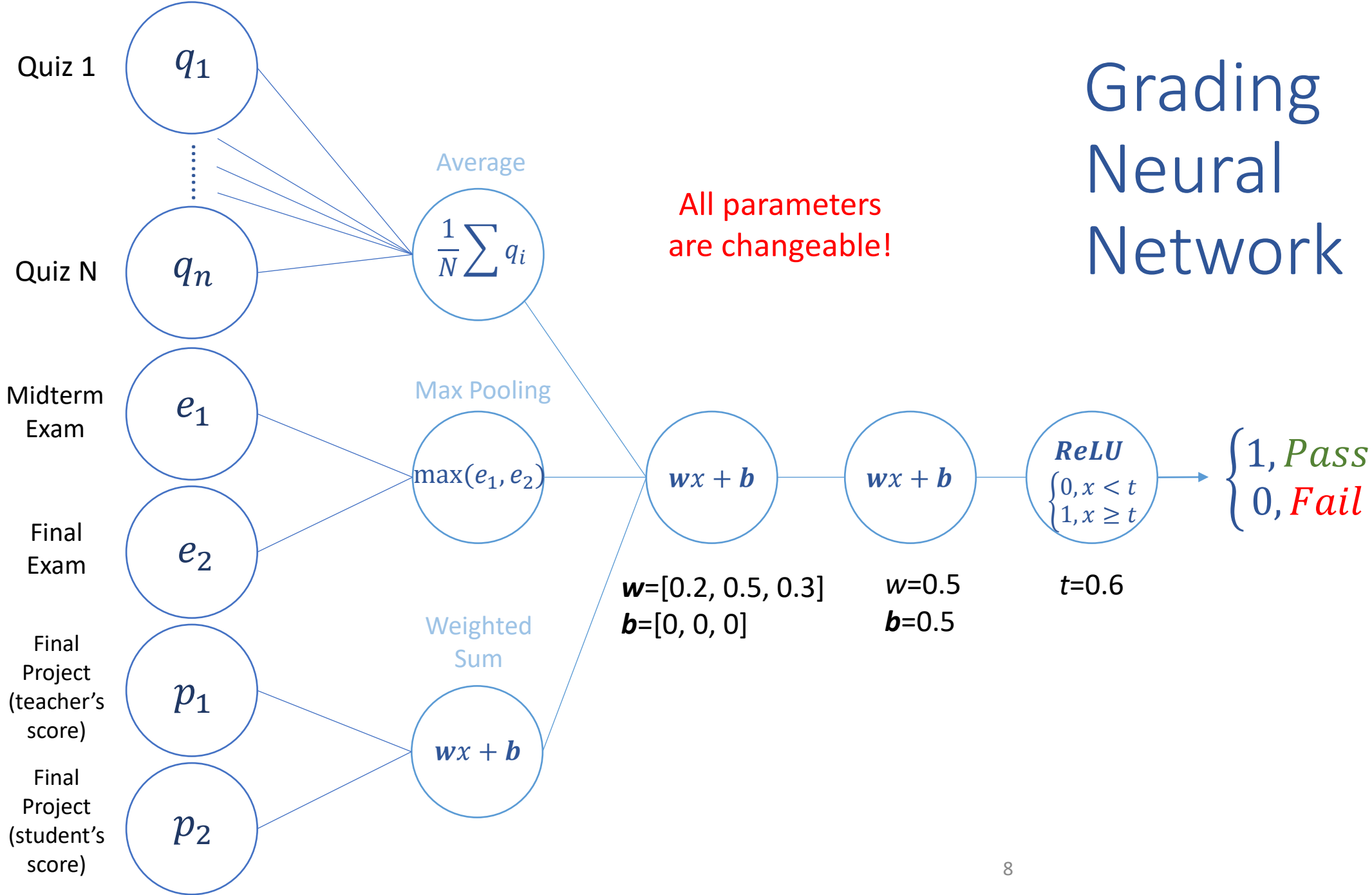
Schedule

Date	Syllabus
9/23	Past, Present, and Future of AI 人工智慧的前世今生與未來
9/30	What is AI? 人工智慧是什麼?
10/7	Machine Learning 機器怎麼學習?
10/14	Applied Math 機器學習中的數學
10/21	Supervised Learning 監督式學習 & Unsupervised Learning 非監督式學習
10/28	TensorFlow & Keras 深度學習開發框架簡介
11/4	Convolutional Neural Networks (CNN) and Image Recognition 捲積神經網路與影像辨識
11/11	Natural Language Processing (NLP) 自然語言處理
11/18	Midterm

Schedule (cont.)

Date	
11/25	RNN & LSTM 遞迴式神經網路
12/2	Attention & Transformer
12/9	Generative Adversarial Networks (GAN) AI藝術大師 - 生成對抗網路
12/16	Object Detection 物件偵測
12/23	Deep Reinforcement Learning (DRL) 擊敗棋王 - 深度強化學習
12/30	Deep Learning on Graphs 深度學習與圖論
1/6	Deep Learning in Medical Imaging 醫療影像辨識
1/13	Final Project Demo (YouTube Video, 10mins)
1/20	Final Exam

Grading Neural Network



IF YOU DON'T STUDY

YOU SHALL NOT PASS

Facebook Group (Taipei Tech 人工智慧概論)

<https://www.facebook.com/groups/431094754268743>

