# COURSE DETAIL

## INTRODUCTION TO DEEP LEARNING FOR COMPUTER VISION

**Country**
Hong Kong

**Host Institution**
University of Hong Kong

**Program(s)**
University of Hong Kong

**UCEAP Course Level**
Upper Division

**UCEAP Subject Area(s)**
Computer Science

**UCEAP Course Number**
134

**UCEAP Course Suffix**

**UCEAP Official Title**
INTRODUCTION TO DEEP LEARNING FOR COMPUTER VISION

**UCEAP Transcript Title**
INTRO COMP VISION

**UCEAP Quarter Units**
5.00

**UCEAP Semester Units**
3.30

**Course Description**

This course introduces the basic theories, model architectures, algorithms, and implementation of deep learning for computer vision. Students obtain hands-on experience on implementing and training deep neural networks for computer vision tasks. The course covers the following topics: (1) neural network optimization algorithms; (2) backbone network architectures for computer vision, including convolutional neural networks and transformers; (3) network structure design for visual recognition tasks (image classification, object detection, image segmentation), and visual content generation tasks; (4) implementation and training of neural networks for computer vision tasks; (5) advanced topics in computer vision and deep learning.

**Language(s) of Instruction**
English

**Host Institution Course Number**
ELEC4542

**Host Institution Course Title**
INTRODUCTION TO DEEP LEARNING FOR COMPUTER VISION

**Host Institution Course Details**
https://engg.hku.hk/Portals/0/UG/syllabuses/Syllabus_BEng(CE_EE_ElecE)_2025-26...

**Host Institution Campus**

**Host Institution Faculty**

**Host Institution Degree**

**Host Institution Department**
Computer Engineering

**Course Last Reviewed**
2025-2026

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