

# CS 518 Deep Learning for Computer Vision (Spring 2023)

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## Course Information

**Meeting time:** 03:00 PM - 04:15 PM Mon/Wes  
**Location:** LC A3  
**Instructor:** [Wei Tang](mailto:tangw@uic.edu) (tangw@uic.edu)  
**Office hours:** 1:30pm-2:30pm Tuesday, SEO 1141  
**Course materials:** [Blackboard](#)

## Syllabus

Week	Topic
1	Introduction to computer vision; neural networks
2	Convolutional neural network (CNN)
3	Applications of CNN: object detection
4	Applications of CNN: segmentation and pose estimation
5	Applications of CNN: face recognition and person re-identification
6	Generative adversarial networks (GAN)
7	Applications of GAN: image restoration
8	Applications of GAN: image translation
9	Recurrent neural networks (RNN) and long-short term memory (LSTM)
10	Proposal presentation
11	No class (spring break)
12	Applications of RNN/LSTM: action recognition
13	Applications of RNN/LSTM: vision and language
14	Attention and vision Transformer
15	Self-supervised deep learning
16	Final presentation

## Grades

**Attendance:** 10%  
**Pytorch tutorial :** 10%  
**Proposal presentation:** 10%  
**Proposal report:** 15%  
**Final presentation:** 20%  
**Final report:** 35%

## Policies

- The University's [policy](#) applies.
- Zero tolerance of plagiarism.