CPE/EE 428   **Computer Vision**   **Winter 2019**

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Lecture hours: MWF 2:10-3 pm (21-238)
Lab hours: TR 8:10-11am (20-136)
Office hours: MF 10-11am, MW 3-4 pm, F 1-2, or by appointment (20-307)

Textbook: none
Reference books:
        Various online textbooks available via *PolyLearn*

Prerequisites: Senior or graduate standing or consent by instructor.

Course Description:
Introduction to basic topics in computer vision such as image processing, edge detection, feature detectors, segmentation, object detection and recognition. Gain hands-on experience in developing computer vision systems for applications of interest.

Topics (tentative):
1. Image formation and digital image representations
2. Image filtering
3. Edge and features
4. Model fitting
5. Image segmentation
6. Stereo and motion
7. Object detection
8. Object recognition

Grading (tentative):
Projects 35%, Midterm 15%, Final Exam 25%, Final project 25%

- Weekly course overview, reading assignment, project assignment, and course related materials will be posted on PolyLearn. Please check it regularly.

- **Midterm**: February 19 (Tuesday, Week 7), **Final Exam**: March 18 (Monday) 1:10-3:10 pm

Course Format:
This is a combination lecture/lab course. You will be working in a team of up to 3 students on all projects.