



Syllabus for CSE185-01: Intro to Computer Vision

Spring 2019

Instructor: Chi Yan Leung

Designation:	CSE 185
Catalog Description:	This course covers the basic concepts of computer vision. The topics include image formation, edges, filters, segmentation, features, optical flow, 3D reconstruction, object detection, object recognition and object tracking.
Text Books and Other Required Materials:	Computer Vision: Algorithms and Applications, Richard Szeliski Reference Books: - Computer Vision: A Modern Approach, 2nd edition, David Forsyth and Jean Ponce - Learning OpenCV: Computer Vision with OpenCV Library, Gary Bradski and Adrian Kaehler
Course Objectives/ Student Learning Outcomes:	Students will learn the algorithms and techniques in computer vision. Students learn how to process and image data by formulating problems with algorithms and techniques covered in this course
Program Learning Outcomes:	
Prerequisites by Topic:	Calculus, Linear Algebra
Course Policies:	LABS: - Attendances are mandatory - Each lab assignment is closed at 11:59pm of the 7th day after it is assigned. You cannot submit any work after it is closed. - You must demo your lab submission within 14 days after it is assigned in order for it to be graded. - ALL submitted labs without demo will NOT BE GRADED. - If you demo it within 7 days, you are allowed to make corrections and re-submit it before the assignment is closed. - You will have time to demo your submissions to your TA during lab time of the following week. - If you expect to submit your work late, you must request for approval from your instructor only BEFORE the due date. - All late submission requests after the due date will not be considered unless accompanied with proper documentations of excuses.
Academic Dishonesty Statement:	a. Each student in this course is expected to abide by the University of California, Merced's Academic Honesty Policy. Any work submitted by a student in this course for academic credit will be the student's own work. b. You are encouraged to study together and to discuss information and concepts covered in lecture and the sections with other students. You can give "consulting" help to or receive "consulting" help from such students. However, this permissible cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in the form of an e mail, an e

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	mail attachment file, a diskette, or a hard copy. Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment. Penalty for violation of this Policy can also be extended to include failure of the course and University disciplinary action.
	c. During examinations, you must do your own work. Talking or discussion is not permitted during the examinations, nor may you compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations will result in failure of the exam, and may lead to failure of the course and University disciplinary action.
Disability Statement:	Accommodations for Students with Disabilities: The University of California Merced is committed to ensuring equal academic opportunities and inclusion for students with disabilities based on the principles of independent living, accessible universal design and diversity. I am available to discuss appropriate academic accommodations that may be required for student with disabilities. Requests for academic accommodations are to be made during the first three weeks of the semester, except for unusual circumstances. Students are encouraged to register with Disability Services Center to verify their eligibility for appropriate accommodations.
Topics:	Image formation Camera model Edges Corners Segmentation Optical flow 3D reconstruction Object detection Object recognition Object tracking
Class/laboratory Schedule:	Lecture: MW 3:00-4:15pm, CLSSRM 116: Labs:See schedule for time and locations
Midterm/Final Exam Schedule:	This schedule is subject to change, but is tentatively set as follows: Midterm #1 : February 27, 2019 (in class) Midterm #2 : April 17, 2019 (in class) Final : May 15, 2019 (CLSSRM 116)
Course Calendar:	
Professional Component:	
Assessment/Grading Policy:	10% Class participation 30% Programming and homework assignments 30% Two midterm exams 30% Final exam 20% Independent term project for extra credit
Coordinator:	Chi Yan (Daniel) Leung
Contact Information:	Email: cleung3@ucmerced.edu I will try to answer your emails within 48 hours. However, I may not answer email after 5:00 p.m. or on weekends. Please plan accordingly.
Office Hours:	T/R: 10:00am-12:00pm (AOA 126) W: 9:00 - 10:30am (AOA 126) or by appointment