

SYLLABUS & TENTATIVE SCHEDULE (FALL 16)			
Date	Topics	Readings	Assignments
Tu, Aug. 30	L1. Introduction / Course Overview	Chapter 1 (RS)	
	L2. Image Formation	2.1.5, 2.1.6, 2.2.3 (RS) ----- Ch. 2 pp. 18-29 (Horn) [Ch. 2 pp. 15- 28 Trucco]	
Tu, Sep. 6	L3. Image Sensing	2.3 Intro, 2.3.2 (RS) ----- Ch. 2 pp. 28-40 (Horn), [Ch.2 pp. 30-40 Trucco]	
	L4. Binary Images	Ch. 3 pp. 46-58, Ch.4 65-71 (Horn) ----- 3.3 (RS)	
Tu, Sep. 13	L5. Convolution and Filtering	3.1.1, 3.2 (RS) ----- Ch. 6, pp. 103-109 (Horn), Ch. 3, pp. 55-60 (Trucco)	HW1 due
	L6. Introduction to Edge Detection	Ch. 8, pp. 159-168 (Horn) ----- 4.2 (RS)	
Tu, Sep. 20	L7. Canny edge detection/Edge linking	4.2.2 (RS) ----- Ch. 4 (Trucco)	

	L8.Frequency Domain / Fourier Transform	3.4 (RS) ----- Ch. 6 (Horn), Ch. 7 (Forsyth & Ponce)	
Tu, Sep. 27	L9. Frequency Domain, cont.	-//-	HW2 due
	L10.Lines/Hough Transform	4.3 (RS) ----- Ch. 4 pp.82-85 (Trucco) , Ch. 5 95-101 (Trucco)	
Tu, Oct. 4	NO CLASS		
F, Oct. 14 --Note that --class --is --on --FRIDAY	L11.Segmentation & Boundary Representations	5.1.1, 5.3 (RS) ----- pp. 108-113 (Trucco), Ch. 8 (Ballard & Brown)	Project Proposal Due
	L12. Feature Detection & Matching / Corners SIFT / Histogram-of-Oriented-Gradients, Shap Contexts, K-D trees.		
Tu, Oct. 18	L13. Radiometry & Reflectance	2.2 (RS) ----- Ch. 2 (pp. 22-24) and Ch. 10, pp. 202-215 (Horn)	HW3 due
	L14. Photometric Stereo & Shape from Shadin	12.1.1 (RS) ----- pp. 215-232 (Horn)	
Tu, Oct. 25	MIDTERM		
Tu, Nov. 1	L15. Object Recognition		
	L16. Object Recognition --cont		
Tu, Nov. 8	L17. Camera Calibration	Ch. 6 (Trucco) ----- 6.3 (RS)	HW4 due

	L18. Stereo I	11.1 through 11.5 (RS) ----- Ch. 8, pp. 177-198 (Trucco), Ch. 13 (Horn-Optional)	
Tu, Nov. 15	L19. Stereo II	-//-	
	L20. Optical Flow & Motion	8.4, 7.3 (RS) ----- Ch. 12 (Horn), Ch. 8, pp. 177-198, 203-208 (Trucco)	
Tu, Nov. 22	L21. Structure from motion (Photosynth project)	7.4 (RS)	
	L23. 3D Modeling & Range Scanning	12.2-12.5 (RS)	
Tu, Nov. 29	Project Presentations		
Tu, Dec. 6	Project Presentations		