

LECTURES					LABORTORIES		
Day		Topic	PSet release	Pset due	Day		Topic
7-Sep	Lecture 1	<i>Introduction to 2.12 Actuators and drives</i>			8/9-Sep	Laboratory 1	<i>Move the mobile robot wheels: motor velocity control.</i>
12-Sep	Lecture 2	<i>Robot Mechanisms</i>			15/16-Sep	Laboratory 2	<i>Mobile robot path tracking using dead reckoning</i>
14-Sep	Lecture 3	<i>Kinematics - Planar</i>	HW1		22/23-Sep	<i>Student holiday</i>	
19-Sep	Lecture 4	<i>Kinematics - Spatial Representations</i>			29/30-Sep	Laboratory 3	<i>Path following with visual feedback: Integration and Visualization using ROS</i>
21-Sep	Lecture 5	<i>Kinematics - Spatial Methods</i>	HW2	HW1	6/7-Oct	Laboratory 4	<i>Camera calibration, color space, and depth sensing using Kinect</i>
26-Sep	Lecture 6	<i>Kinematics - Differential motion</i>			13/14-Oct	Laboratory 5	<i>Manipulator kinematics and control</i>
28-Sep	Lecture 7	<i>Kinematics - Trajectories</i>	HW3	HW2	20/21-Oct	Laboratory 6	<i>Project Preparation</i>
3-Oct	Lecture 8	<i>Kinematics - Planning</i>			27/28-Oct	Laboratory 7	<i>Project Preparation</i>
5-Oct	Lecture 9	<i>Vision - Image Formation</i>	HW4	HW3	3/4-Nov	Laboratory 8	<i>Project Technical Review (Show software/hardware)</i>
10-Oct	<i>Holiday: Columbus day</i>				10/11-Nov	<i>Holiday: Veterans day</i>	
12-Oct	Review	<i>Problems</i>		HW4	<i>(project open time)</i>		
17-Oct	Lecture 10	<i>Vision - Image Processing</i> CANCELLED			17/18-Nov	Laboratory 9	<i>Project Preparation</i>
19-Oct	<b>EXAM 1</b>				24/25-Nov	<i>Holiday: Thanksgiving</i>	
24-Oct	Lecture 11	<i>Statics - Forces</i>			<i>(project open time)</i>		
26-Oct	Lecture 12	<i>Statics - Virtual Work</i>			1/2-Dec	<b>PROJECT PRACTICE &amp; COMPETITION</b>	
31-Oct	Lecture 13	<i>Control - Position-force control</i>					
2-Nov	Lecture 14	<i>Control - Compliance control</i>	HW5				
7-Nov	Lecture 15	<i>Dynamics 1</i>					
9-Nov	Lecture 16	<i>Dynamics 2</i>	HW6	HW5			
14-Nov	Lecture 17	<i>Control - Dynamic Control 1</i>					
16-Nov	Lecture 18	<i>Control - Dynamic Control 2</i>		HW6			
21-Nov	<b>EXAM 2</b>						
23-Nov	NO CLASS						
28-Nov	Guest Lecture 1	<i>Boston Dynamics Al Rizzi</i>					
30-Nov	Guest Lecture 2	<i>Toyota Research Institute John Leonard</i>					
5-Dec	Guest Lecture 3	<i>ABB Robotics Remus Boca</i>					
7-Dec	Lecture 19	<i>A Career in Robotics</i>					
12-Dec	Guest Lecture 4	<i>Amazon Robotics Joey Durham</i>					
14-Dec							