1　Class Schedule

Date	Standard Track	Advanced Track
9/7	Organization	
9/9	Robotics Introduction and Philosophy Reading: Martin Ch.1,2; Mataric Ch.1,2	
9/14	Sensors, Actuators, and Kinematics Reading: Martin Ch.3,4; Mataric Ch.3,4,7,8	
9/16	Lab 1: Lego design and BrickOS intro	Lab 1: Player/Stage installation
9/21	Control Theory and Robot Programming Reading: Martin Ch.5; Mataric Ch.10	
9/23	Continue Lab 1	Lab 2: Exploration and Coverage
9/28	Autonomous Control Architectures Reading: Martin Ch.5; Mataric Ch.11-16	
9/30	Lab 2: Sensors	Lab 3: Articulated robot
10/5	Learning for Robotics Reading: Mataric Ch.17-19	
10/7	Lab 3: PID Control	TBD
10/12	Mobile robotics and Advanced Sensing Reading: Martin Ch.6; Mataric Ch.9	
10/14	Lab 4: Subsumption	Lab writeups due
10/19	Humanoid and Articulated Robotics Reading: Mataric Ch.5,6	
10/21	Lab 6: Sonar	Project Discussion
10/21	Assign midterm project	Project Proposal Due
10/26	Uncertainty and Probabilistic Robotics	
10/28	Reconfigurable Robotics; Nanorobotics	
11/1		Project peer reviewing due
11/2	Project workshop	
11/3	Midterm project due	
11/4	Midterm project presentations	TBD
11/9	Guest Speaker: Tom Dean Reading: Bonasso and Dean	
11/11	Aerial and Underwater Robotics	
11/16	New Domains: Human-robot interaction, Assisitive robotics, Activity modeling	
11/18	Prototype demonstration	Initial demonstration
11/23	Case Study: NASA Robonaut	
11/25	Case Study: RoboCup	
11/30	No class (Thanksgiving break)	
12/2	Case Study: Mars Rover	
12/7	Final Project demonstrations	Project demonstrations
12/9	Final Project report due	Project paper due

2   Important

Project writeups are due 1 week after their accompanying lab.

3   References

- Martin, F., "Robotic Explorations: A Hands-On Introduction to Engineering", Prentice-Hall, 2001.

- Matarić, M., "The Robotics Primer", unpublished draft, 2004.

- Player/Stage/Gazebo Project, http://playerstage.sourceforge.net

- Bonasso, P., Dean, T., "Retrospective of the AAAI Robot Competitions", AI Magazine, Volume 18 (1), 1997. (PDF)