University of Washington
Computer Science and Engineering
Winter 2007

CSE 490 I: Design in Neurobotics

Tentative Syllabus
UPDATED: 1/10/07

WEEK	LECTURE TOPICS	LABS	HW (due date)
Week 1 (1/4)	Introduction to Neurobotics(tue) MATLAB tutorial (thu)	None	None
Week 2 (1/9, 1/11)	Robot Feedback Control	Lab1: Learning Systems Simple Control	PS1 (1/9) literature
Week 3 (1/16, 1/18)	Stable Robot Control	Lab 2: Stable Robot Control PID	PS2 (1/16) P control
Week 4 (1/23, 1/25) guest	Neural Control of Movement(tue) Brain Machine Interface(thu)	Lab 3: Forward Mapping with Dataglove 5 fingers -> 5 joints Make it smarter	PS3 (1/23) PID control
Week 5 (1/30, 2/1)	Human System Identification	Lab 4: Inverse Mapping Identification 2~3 black boxes	PS4 (1/30) eCoG analysis standard
Week 6 (2/6, 2/8)	Prosthetics Control/Learning	Lab 5: Learning Learning given mapping Tutorial for enhanced learning	PS5 (2/6) eCoG analysis creative
Week 7 (2/13, 2/15)	Challenges in Motor Learning	Project	PS6 (2/13) Prosthetics literature
Week 8 (2/20, 2/22)	Neural Control of Movement	Project	PS7 (2/20) Neural control
Week 9 (2/27, 3/1)	Requested Topic	Project	PS8 (2/27) Neural control learning
Week 10 (3/6, 3/8)	Project Demo Competition	Demo/Competition	Project write-up