

Logistics

Tues, Thurs 8:30-9:50

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Teaching Team: Others from NMBL

Required Text: Course Reader (available in the bookstore)

Preliminary Schedule

<u>Date</u>	<u>Lecture Title</u>	<u>Reading(Section)</u>	<u>Homework</u>
1/5	Introduction and Overview of Class		
1/7	Design of a Tuned Track	McMahon (1)	HW1 out
1/12	Locomotion		OpenSim 1 out
1/14	Muscle Structure and Force Generation	Lieber (2)	HW1 due, HW2 out
1/19	Muscle-tendon Interaction and Mechanics	Lieber (3)	Topics due
1/21	Musculoskeletal Geometry	An (4), Zajac (5)	OpenSim 1 due 2 out
1/26	Neuromuscular Overview	McMahon(6)	
1/28	Muscle Adaptation		HW 2 due
2/2	Clinical application and Midterm review		OpenSim 2 due
2/4	Midterm Exam		
2/9	Motion Tracking Techniques	“Optometric ...” (7)	OpenSim 3 out
2/11	The Inverse Dynamics Problem	Winter (8)	HW3 out, outlines due
2/16	Equations for Inverse Dynamics	Zajac (pdf)	
2/18	Tour of Motion Lab		OpenSim 3 due
2/23	Clinical and Sports Applications		HW3 due, HW 4 out
2/25	Advanced Biomechanics Techniques	Delp (pdf)	
3/2	Student Presentations		
3/4	Student Presentations		
3/9	Student Presentations		HW 4 due
3/11	Class Wrap-up and Review for Final		Papers due
3/15	Final Exam (12:15-3:15)		