

BIOEN 520 / ME 599R

MUSCULOSKELETAL BIOMECHANICS

[Winter 2008, Tu/Th 8:30-10:20 am, Art 006]

<u>Session</u>	<u>Date</u>	<u>Topic</u>	<u>Reading*</u>	<u>HW</u>
#1	01/08/08	Introduction: Course Admin. / History & Current Topics		
#2	01/10/08	Background: Basic Anatomy & Mechanics / Viscoelasticity		
#3	01/15/08	Methods: Exp. Design (Metrics/Models/Test Env./Study Design)		
#4	01/17/08	Methods: Tools of the Trade (Force/Pressure/Displacement)		
#5	01/22/08	Methods: Kinematics / Lab-1 (Polhemus: Kinematics)		
#6	01/24/08	Methods: Data Analysis (@ CCB: Data Reduction and Stats)		
#7	01/29/08	Results: Properties of Soft Tissues (Ligaments/Tendon)		
#8	01/31/08	Results: Cartilage and Muscle Biomechanics		
#9	02/05/08	Results: Biomechanics of Bone & Joint Systems		
#10	02/07/08	Exam 1		
#11	02/12/08	Results: Biomechanics of the Spine		
#12	02/14/08	Results: ABL Lab Tour/Lab-2 (Intervertebral Disc)		
#13	02/19/08	Results: Biomechanics of the Upper Extremity		
#14	02/21/08	Results: Biomechanics of the Lower Extremity / Motion Analysis		
#15	02/26/08	Results: VA Lab Tour/Lab-3 (Motion Analysis)		
#16	02/28/08	Discussion: Limitations/Test Considerations		
#17	03/04/08	Discussion: Applications (Prosthetic Engineering)		
#18	03/06/08	Discussion: Applications (Medical Devices)		
#19	03/11/08	Exam 2		
#20	03/13/08	Discussion: Applications (Accident Reconstruction)		
#21	03/18/08	Conclusion: Submit Final Papers / Course Evaluation		

Text: Biomechanics of the Musculo-Skeletal System, 3rd Ed. by B.M. Nigg and W. Herzog, John Wiley & Sons, 2007
Handouts distributed as PDFs via course website: <http://courses.washington.edu/bioen520/>