

**BE/CHEM/MN 527/727 Biomaterials and Tissue Engineering II  
Spring 2009**

Boston University: BME, CH, ME Departments  
Tue/Thu: 10-12 (PHO 202)

**Instructors:** Professors Joyce Wong, and Mark Grinstaff

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**Grading (25% each):** 2 exams, a 10 pg NIH-like proposal (weighed equally), labs

<b>Date</b>	<b>Topic</b>	<b>Instructor</b>
Jan 15	Overview of course (motivation)	Wong
Jan 20	Blood contacting materials and coagulation	Wong
Jan 22	Protein adsorption	Wong
Jan 27	Protein adsorption (paper discussion)	Wong
Jan 29	Cell adhesion Wound Healing	Wong
Feb 3	Cell adhesion	Wong
Feb 5	Cell migration	Wong
Feb 10	Exam review	Wong
Feb 12	Exam I	Wong
Feb 19	Developmental Biology Fundamentals: Tissue Development	Wong
Feb 24	From cells to tissues (2D to 3D)	Wong
Feb 26	Hard Tissue Mechanics	Wong
Mar 3	Soft Tissue Mechanics	Wong
Mar 5	Foreign Body Response	Wong
Mar 17	Exam review	Wong
Mar 19	Inflammation and Toxicity	Wong
Mar 24	Exam II	Wong
Mar 26	Stem Cell Biology	Grinstaff
Mar 31	Applications: Drug Delivery	Grinstaff
April 2	Applications: Gene Therapy	Grinstaff
April 7	Applications: Tissue Engineered Skin	Grinstaff
April 9	Applications: Tissue Engineered Cartilage	Grinstaff
April 14	Applications: Tissue Engineered Bone	Grinstaff
April 16	Applications: Biologic Delivery – cells and growth factors	Grinstaff
April 21	Applications: In vivo imaging	Grinstaff
April 28	Applications: Cardiovascular Systems	Grinstaff
April 30	NIH Proposal Due	Grinstaff