

# Molecular, Cellular & Tissue Biomechanics

Fall 2012

BIOE 498: CRN 57032 | ME 498: CRN 57022

*3 credit hours*

**Live videoconferenced lectures**

**Illinois campus on Tuesdays and Thursdays, 9:30-11:00 AM CST**

**Begins Thursday, September 6**

Taught by Roger D. Kamm (MIT), Victor Barocas (U of Minnesota), Wonmuk Hwang (Texas A&M University), and Muhammad Zaman (Boston University)

Local instructor: Professor K. Jimmy Hsia

**Prerequisites:** Undergraduate courses in traditional mechanics, molecular and cell biology, differential equations and statistical thermodynamics, or permission by the local instructor.

**Course Objectives:** This course develops and applies physical principles and the methods of continuum mechanics to biomechanical phenomena over a range of length scales, from molecular to cellular to extracellular matrix. It is intended for beginning and intermediate graduate students who have been exposed to vectors and tensors, differential equations, undergraduate course(s) in either fluid or solid mechanics, and aspects of molecular & cell biology.



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