BIOEN 3091 “Current Research in Bioengineering”

Fall 2014, 1 Credit Hour; 11:50-12:40 Wednesdays; 2250 Warnock Engineering Building

Goal of Class: To introduce our upper division and entering graduate students to some of the exciting research projects that are currently ongoing in our department.

Course Director: Hamid Ghandehari, 7-1565

Credit/No credit; Roll will be taken at each lecture. Each student will buy a notebook (or use their laptop), take notes on each lecture, propose two questions at the end of each lecture (to be written in their notebooks or laptop), and turn in their notebooks (or printouts of their laptop notes) at the end of the course for a credit/no credit ‘grade’. Each student can miss no more than three lectures to receive a CR grade for the course.

Aug. 27 – Richard Normann: “Neuroprosthetics: Devices and Clinical Applications”

Sept. 3 – Orly Alter: “Discovery of Principles of Nature from Matrix and Tensor Modeling of Large-Scale Molecular Biological Data”

Sept. 10 – Glenn Prestwich: “Regenerative Medicine: From Organic Chemistry to Polymer Hydrogels to the Clinic”

Sept. 17 – Frank B. Sachse: “Confocal Microscopy in Biomedical Research”


Oct. 1 – Rob McLeod: "Image Based Approaches to Cardiology"

Oct 8 – John White: "Using Light to Study the Nervous System."

Oct. 15 – Fall Break (No Class)

Oct. 22 - Chris Johnson: “Computing the Future of Biomedicine”

Oct. 29 - Douglas A. Christensen: "Non-imaging Uses of Ultrasound in Medicine"

Nov. 5 – Florian Solzbacher: “Next Generation Implantable Devices for Personalized Healthcare.”

Nov. 12 – Bruce Gale: “A Microfluidic Toolbox for Biomedical and Diagnostic Applications”

Nov. 19 – Bala Ambati: “Interfaces & Opportunities where Engineering & Ophthalmology Meet”


Dec 3 – Andrea Bild: “How to Use Genomics to Personalize Treatment for Cancer Patients”

Dec 10 – Dennis Parker: “Developing Technology for MRI Guided High-Intensity Focused Ultrasound”