

# Course Announcement

## Cell Culture and Concepts of Tissue Engineering Laboratory Course

**MCB 493JLM Fall 2007**

If you are looking to improve your mammalian cell culturing skills, are interested in the field of Tissue Engineering or using cells in bioengineering related research, this course may be useful.

**Topics include:** Differentiation of fibroblasts to adipocytes, induction of bone growth from stem cells, transfection of cells with GFP, observation of cytoskeletal structure, visualizing the effects of the ECM and other external factors on cell attachment and differentiation, use of SDS-PAGE and Western as tools to analyze cell differentiation, creation of physical patterns for neurons to follow and production of a primary culture of cells from student's own hair follicles.

All of these concepts are introduced while students increase their proficiency in cell passaging, counting, freezing and thawing cells. Students work (in pairs) with four established cell lines and two primary cell cultures.

### **Grading:**

Three comprehensive lab write-ups  
Final exam  
Brief weekly online quizzes  
Pre and Post lab exercises

### **Class Information:**

2 Credit Hours  
Lecture 4-4:50 Thursday in 3110 DCL  
Lab 5:00-8:50 Thursday in 3110 DCL

**Return session:** Students will need to arrange for return lab time on Monday in a block of 1.5 hours between 8:30 a.m - 4:00 p.m.

To apply for a space in this section, visit  
<http://www.bioen.uiuc.edu/courses/bioe202/>

Or contact Joanne Manaster at [joannema@life.uiuc.edu](mailto:joannema@life.uiuc.edu)

