MECH450A: Biomaterials and Tissue Engineering – Spring 2014

Course Description: This course will cover the various types of biomaterials and their associated properties as well as the experimental techniques used to characterize them. This knowledge will then serve as a starting point for investigating the field of tissue engineering using biomaterial based scaffolds through a project.

Instructor: Dr. Stephanie Willerth
Email: willerth@uvic.ca
Office phone: (250) 721-7303
Office hours: Stop by after class or email for an appointment.

Teaching Assistant: Nima Khadem Motaram
Email: nkhadem@uvic.ca
Office: EOW 241
Telephone: (250) 721-6510
Office hours: TBA or email for an appointment

Grading:
Homework Assignments: 30%
Mid-term examination: 35%
Final project: 35%

Class Times:
MR 1:00 -2:20 pm in DSB C126

Required Textbook:

Course Syllabus:
1. Introduction to biomaterials and tissue engineering (Week 1)
2. Classes of materials and their properties (Weeks 2-4)
3. Characterization of materials (Week 5)
4. Host reactions to biomaterials (Week 6)
5. Biological testing of biomaterials and considerations for the design of artificial organs (Week 6-7)
** Midterm exam on February 24th
7. Cell culture and stem cells (Week 9)
8. Tissue engineering (Week 10)
8. Case studies and projects (Week 11)
9. Presentation of research projects (Week 12) Projects will be due on April 3rd.
Problem sets, lecture notes and supplemental material will be posted on the Moodle site for MECH450.

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For student FAQs http://www.moodlehelp.uvic.ca/student/studentfaq.php
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For Moodle support staff help, email: moodle@uvic.ca