



School of
Biomedical
Engineering

Engineering Technology Building
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BME 706 - 2013/2014
Biomedical Engineering Core II

Course Objective: An introduction to biomedical engineering with a health science focus. The biological and chemical concepts involved in the design and operation of medical devices and biological processes will be discussed. The following research themes will be emphasized: cell biological responses to biomaterials, tissue engineering, genetic engineering, gene therapy, biotechnology, physiological response to biomaterials.

Instructors: Dr. Heather Sheardown (JHE 124A, ext. 24794)
Dr. Todd Hoare (JHE A409, ext. 24701)
Dr. Peter Margetts (St. Joes T3305, ext. 32299)
Dr. Ram Mishra (HSC 4N78, ext. 22396)
Dr. Kjetil Ask (St Joes T2112 ext. 35355)
Dr. Judy West-Mays (HSC 1R10, ext. 26237)

TA: Scott Bowman

Lecture Hours: Tuesday, January 7th 2:30 – 5:00 pm
Thursdays (starting January 16th) 2:30 – 5:00 pm

Lecture Room: ETB 535
ETB 534 on Thursday, January 30th and Thursday, February 27th

Assessment: 6 quizzes (closed book - 30 minutes) 65%
(one quiz per segment, to be given at the start of class of the next segment)

Project 35%
Oral PowerPoint presentation (12 min) followed by Q and A session (8min)

The Faculty of Engineering is concerned with ensuring an environment that is free of all discrimination. If there is a problem, individuals are reminded that they should contact the Department Chair, the Sexual Harassment Officer or the Human Rights Consultant, as the problem occurs.

McMaster University Statement on Academic Dishonesty

Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university. It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at:

http://www.mcmaster.ca/senate/academic/ac_integrity.htm

Lecture Schedule:

*January 7th January 16th	Dr. Sheardown – Biological Interactions with Materials continued
January 23rd #January 30th	Dr. Hoare – Tissue Engineering continued
February 6th February 13th	Dr. Margetts - Dialysis membranes for end stage renal disease continued
February 20th #February 27th	Dr. Mishra - Drug receptors and signal transduction, Pharmacokinetics and Pharmacodynamics continued
March 6th March 13th	Dr. Ask – Gene Therapy continued
March 20th March 27th	Dr. West-Mays – Animal Models and Drug Delivery continued
April 3rd April 10th April 17th	last quiz Student presentations Student presentations

* This class will take place on **Tuesday**

These classes will be held in ETB 534