



School of
Biomedical
Engineering

Engineering Technology Building
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BME 706 – 2020

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, and physiological response to biomaterials.

Instructors: Dr. Heather Sheardown hdsheardown@gmail.com
Dr. Todd Hoare hoaretr@mcmaster.ca
Dr. Peter Margetts margetts@mcmaster.ca
Dr. Ryan Wylie wylie@mcmaster.ca

Dr. Janie Wilson janiewilson@mcmaster.ca
Dr. Ram Mishra (Course Coordinator) mishrar@mcmaster.ca

TA: Sondos Ayyash <ayyashs@mcmaster.ca>

Lecture Hours: Thursdays (starting January 14th) 2:30 – 5:30 pm

Lecture Room: BSB 115

Assessment: Group Presentations 65%
(One presentation per instructor, assigned the first week of each section)
Individual Presentation 35%
(Twelve minute presentation followed by five minute Q&A session)

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 14 th	Sheardown - Biological Responses to Biomaterials (Room BSB 115)
January 21 st	Group presentations (Dr. Sheardown) (Room BSB 115)
January 28 th	Dr. Wylie – Biomaterials for Cancer Immunotherapies (BSB 115)
February 4 th	Group presentations (Dr. Wylie) (BSB 115)
February 11 th	Dr. Mishra-Drug Receptors and Pharmacodynamics. (BSB 115)
February 18 th	Group presentations (Dr .Mishra) (BSB 115)
February 25 th	Dr. Margetts– Dialysis Membranes for End Stage Renal Disease (BSB 115)
March 3 rd	Group presentations (Dr. Margetts) (BSB 115)
March 10	Dr. Hoare – Tissue engineering (BSB 115)
March 17	Group presentations (Dr. Hoare) (BSB115)
March 24 th	Dr. Wilson – Musculoskeletal Injury Mechanisms (BSB 115)
March 31 st	Group presentations (Dr. Wilson) (BSB 115)
April 7 th	Individual Student Presentation (BSB 115)
April 14 th	Individual student presentation (BSB 115)

