

Biology of Microorganisms Biology 2711 (2020F)**Lecture: Mon & Wed 10:00 pm – 11:30 pm (Online)****Course instructor: Kam Tin Leung, CB4024****Phone: 343-8265****E-mail: ktleung@lakeheadu.ca****Office hours: Email appointment****Lab: Online****Lab instructor: Michael Moore, CB3011****Phone: 343-8909****E-mail: mnmoore@lakeheadu.ca**

This course gives an overview of the biology of microorganisms. Two major areas will be covered in this course. Theme 1 includes some history and general aspects of microbiology, bacterial cell structure, metabolism and taxonomy. Theme 2 includes general bacterial and viral genetics. Specific disciplines of microbiology will be offered in the 3rd and the 4th years (e.g. Pathogenic Bacteriology, Applied and Environmental Microbiology, Food Microbiology, Biology of Food Safety, Molecular Genetics, Biology of Fungi, Parasitology, Research Internship and Honours Thesis).

Michael Moore is the lab instructor of the Biology of Microorganisms course. The lab is a mandatory part of this course. Students will learn basic skills in handling bacteria, proper use of microscope, staining and aseptic techniques, characterize and identify microorganisms.

Textbook	Microbiology by Foster et al.
Class notes	D2L
Lab book	D2L
Lecture	Mon & Wed 10:00 – 11:30 pm (Online)
Lab	Online
Final date to register	Sept. 21 (Monday)
Final date to withdraw	Nov. 6 (Friday)
Quizzes (20%)	Every class
Midterm exam (20%)	Oct. 26 (Monday)
Final exam (30%)	To be arranged
Laboratory (30%)	
Total = 100%	

Lecture schedule for Biology of Microorganisms (Biol. 2711)

- May change depending on the progress of the course.

Date	Topic
Sept. 9 (Wed)	Introduction and general microbiology
Sept. 14 (Mon) Sept. 16 (Wed)	Introduction and general microbiology (Quiz) Introduction and general microbiology (Quiz)
Sept. 21 (Mon) Sept. 23 (Wed)	Cell structure and function (Quiz) Cell structure and function (Quiz)

Sept. 28 (Mon) Sept. 30 (Wed)	Microbial metabolism (Quiz) Microbial metabolism (Quiz)
Oct. 5 (Mon) Oct. 7 (Wed)	Microbial growth (Quiz) Microbial growth (Quiz)
Oct. 12 – 16	Study Week
Oct. 19 (Mon) Oct. 21 (Wed)	Sterilization, disinfection and antimicrobial agents (Quiz) Antibiotics (Quiz)
Oct. 26 (Mon) Oct. 28 (Wed)	Mid-term exam Molecular genetics: DNA replication
Nov. 2 (Mon) Nov. 4 (Wed)	Molecular genetics: DNA replication (Quiz) Gene expression (Quiz)
Nov. 9 (Mon) Nov. 11 (Wed)	Gene expression (Quiz) Genetic regulations (Quiz)
Nov. 16 (Mon) Nov. 18 (Wed)	Bacterial genetics (Quiz) Bacterial genetics (Quiz)
Nov. 23 (Mon) Nov. 25 (Wed)	Biotechnology (Quiz) Bacterial taxonomy and diversity (Quiz)
Nov. 30 (Mon) Dec. 2 (Wed)	Viruses (Quiz) Viruses (Quiz)
Dec. 7 (Mon)	Viruses