Biology of Microorganisms Biology 2711 Course Outline (2025W)

Lecture: **Tue & Thu 4:00 – 5:300 pm (Room BB-2006)**
Course instructor: **Kam Tin Leung, CB4024**
Phone: 343-8010 (Ext. 8265)
E-mail: ktleung@lakeheadu.ca
Office hour: **Monday, 11 am -12 noon, Monday (OR appointment)**
TA: **Guimeng Lu (glu4@lakeheadu.ca)**
Lab: **Room CB 3012 (Starts in the 2nd week of the semester)**
Lab instructor: **Michael Moore, CB3011**
Phone: 343-8010 (Ext. 8909)
E-mail: mnmoore@lakeheadu.ca

This course is an introduction to the subject of microbiology. The topics that will be covered in this course include the history and general aspects of microbiology, bacterial cell structure and metabolism, microbial growth and control, bacterial taxonomy, microbial genetics and general virology.

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

Textbook	Not required in this course
References (Recommended. Available in the Lakehead University Library or posted on D2L)	1. Microbiology: The Human Experience (Preliminary edition). By J.W. Foster, Z. Aliabadi & J.L. Slonczewski. W.W. Norton & Co. 2. Microbiology: A Human Perspective (6th edition). By E.W. Nester et al. McGraw Hill. 3. Selected journal articles.
Class notes	Posted on D2L
Lab manual	Posted on D2L
Final date to register	January 17, 2025 (Friday)
Final date to withdraw	March 7, 2025 (Friday)
Midterm Exam (30%)	February 13, 2025 (Thu)
Final Exam (40%)	To be arranged
Lab (30%)	

Lecture schedule for Biology of Microorganisms (Biol. 2711)

- The schedule is subject to change depending on the progress of the course.

Date	**Topic**
Jan. 7 (Tue) Jan. 9 (Thu)	Introduction and general microbiology Introduction and general microbiology
Jan. 14 (Tue) Jan. 16 (Thu)	Introduction and general microbiology Cell structure and functions
Jan. 21 (Tue) Jan. 23 (Thu)	Cell structure and functions Microbial metabolism
Jan. 28 (Tue) Jan. 30 (Thu)	Microbial metabolism Microbial metabolism
Feb. 4 (Tue) Feb. 6 (Thu)	Microbial growth Microbial growth
Feb. 11 (Tue) Feb. 13 (Thu)	Sterilization, disinfection and antimicrobial agents **Mid-term exam**
Feb. 17-21	**Reading Week**
Feb. 25 (Tue) Feb. 27 (Thu)	Antibiotic resistance Molecular genetics: DNA replication
March 4 (Tue) March 6 (Thu)	Molecular genetics: DNA replication Gene expression
March 11 (Tue) March 13 (Thu)	Genetic regulations Genetic regulations
March 18 (Tue) March 20 (Thu)	Bacterial genetics Bacterial genetics
March 25 (Tue) March 27 (Thu)	Bacterial taxonomy and diversity Viruses
April 1 (Tue) April 3 (Thu)	Viruses Viruses