

Pathogenic Bacteriology (Biology 3711, 2021F)

Lecture: 8:30 - 10:00 am, (Wednesday and Friday)

Room: SN1015

Instructor: Kam Leung CB 4024 (ktleung@lakeheadu.ca)

TA: Ruth Amanna (ramanna@lakeheadu.ca)

Office Hours: 2-3 pm, Monday.

Outline of topics

1. Introduction: General background of bacterial pathogenesis
2. Immunology
 - First line of defense against bacterial infections.
 - Second line of defense against bacterial infections.
 - Vaccination.
3. Approaches and methods in studying bacterial diseases.
4. Bacterial strategies against the human immune system.
5. Bacterial Exotoxins.
6. Antimicrobial compounds and antibiotic resistance.
7. Selective bacterial pathogens (may be changed depending on the progress of the course):
 - *E. coli*
 - *Staphylococcus*, *Streptococcus* (*Enterococcus*) and *Streptococcus pneumoniae*
 - Food-borne pathogens: *Salmonella*, *Listeria* and *Campylobacter*.
 - Sexually transmitted bacterial infections: *Neisseria*, *Chlamydia* and *Treponema pallidum*
 - *Pseudomonas aeruginosa* and other opportunistic pathogens

Important dates

First mid-term exam (In-person closed book exam, 1h 15min) (25%): Sept. 29 (Wednesday).

Second mid-term exam (In-person closed book exam, 1h 15min) (25%): Oct. 29 (Friday).

Assignments (15%): 3 assignments.

Final exam (In-person closed book exam, 3h) (35%): TBA

First class: Sept. 8 (Wednesday)

Last day to Add: Sept. 20 (Monday).

Last day to Drop: Nov. 5 (Friday).

Last class: Dec. 3 (Friday).

Textbook

Salyers and Whitt. 2011. Bacterial Pathogenesis: A molecular approach (3rd Edition). ASM Press, Washington, D.C.