

**BIOLOGY 459 (CR ! 10440)**  
**HUMAN ! MICROBIAL DISEASES:**  
**MOLECULES TO COMMUNITIES**  
**September – December 2023**  
**COURSE OUTLINE**

**LECTURER:**

RÉAL ROY, Ph.D.

Office: Cun048a

Tel: 472-5071

email: realroy@uvic.ca

**Lectures: Tu, Wed, Fri 12:30-13:20**

**Room: ECS 116**

**LEARNING OUTCOMES**

1. Understand the interaction between microorganisms and humans as hosts at various levels of complexity: individual, population, and community.
2. Identify different methods of control of microbial diseases such as antimicrobial drugs and vaccines.
3. Describe some of the most common microbial diseases in BC, Canada, North America and the world.
4. Develop ability to critically read primary literature and synthesize findings to prepare case reports.

**COURSE DESCRIPTION:**

An introduction to human infectious diseases and the biology and ecology of pathogenic bacteria and viruses. Basic principles of epidemiology of infectious diseases. Methods of control: antibiotics, antivirals and vaccines. Classification, pathogenicity, molecular diagnostic, epidemiology of various types of human infectious diseases (respiratory, digestive, etc.).

**EVALUATION:**

**Required**

1. MID-TERM EXAM 1: (30 pts) Oct. 3 12:30-1:20 CLE A030,
2. MID-TERM EXAM 2: (30 pts) Nov. 7 12:30-1:20 CLE A030,
3. FINAL EXAM: (40 pts): TBA

Examination will be on Brightspace in a designated room at UVic.

**Students missing the midterm for illness need to notify me by email prior to the**

**examination. A remedial examination will be scheduled as soon as possible after the midterm.**

**Facultative**

4. BONUS (up to 5% of final mark). Some example from the past:

- 1) Reading of articles and answer sheet to be submitted
- 2) Case Study Report (3 pages)
- 3) Attendance of guest lecture

Press, Amsterdam, The Netherlands.

Riley, L. 2004. Molecular Epidemiology of Infectious Diseases. ASM Press, Washington, D.C.

Carrington, M. and A.R. Hoelzel (Eds.). 2001. Molecular Epidemiology. Oxford University Press, Oxford, U.K.

Moon, G., M. Gould, et al. 2000. Epidemiology: An Introduction. Open University Press, Buckingham, U.K.

Schulte, P.A. and F.P. Perera (Eds.). 1993. Molecular Epidemiology. Principles and Practices. Academic Press, San Diego, CA.

### **ATTEN!DANCE**

Attendance to lecture is expected (attendance sheet will be circulated from time to time to record a sample of attendance).

Attendance to evaluations (midterms and final examination) is also recorded and required for marking of evaluation.

### **RECORDING OF LECTURES ON ECHO 360**

This course is delivered in a face-to-face format. Zoom lectures may be done if for some reason (illness) I cannot come to campus to give the lecture.

I intend to record the lectures using Echo 360. But I cannot guarantee a recording in case of technical problems.

If lectures have been recorded, they will be available upon request for students who missed a lecture for illness or another legitimate reason.

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