

LABORATORY STUDIES IN BIODIVERSITY (BIOL 227); Winter 2022

1. General Information

Tutorial: Mondays, 11:45-13:00. Location: SP S110

Laboratory: Tuesday (Group 01), Wednesday (Group 02), Thursday (Group 03) and Friday (Group 04). Time: 13:30 – 17:30. Location: SP 380.19

Microbial Diversity (4 lectures + 4 labs: January 11 – February 01)

Dr. Catherine Calogeropoulos

Biology Department, Faculty of Arts and Science, Concordia University

e-mail: catherine.calogeropoulos@concordia.ca

Office Hours: Mondays 2:00-3:00pm on Zoom. Link: <https://concordia-ca.zoom.us/j/86870394757>

Animal Diversity (3 lectures + 3 labs: February 08 – February 22)

Dr. Emma Despland

Biology Department, Faculty of Arts and Science, Concordia University

e-mail: emma.despland@concordia.ca

Office Hours: Mondays 1:00-2:00pm on Zoom. Link: <https://concordia-ca.zoom.us/j/81680115381>

Field Code Changed

Plant Diversity (4 lectures + 3 labs: March 08 – March 28)

Dr. Jin Suk Lee

Biology Department, Faculty of Arts and Science, Concordia University

e-mail: jinsuk.lee@concordia.ca

Office Hours: Mondays 1:30-2:30pm on Zoom. Link: <https://concordia-ca.zoom.us/j/84185245325>

Field Code Changed

Technical Support:

Sathiyabama Kanaganayagam

e-mail: bama.kanaganayagam@concordia.ca

2. Course description:

This course reviews the diversity of organisms and introduces methods used in their study. The tutorials focus on key evolutionary mechanisms associated with organism diversity, model organisms that illustrate it and phylogenies that integrate diversity. The laboratory exercises are in basic protocols and may include bacterial classification; the structural diversity of protists; reproductive diversity among fungi; invertebrate body plans; arthropod and mollusc classification; exercises in vertebrate homology; and studies on plant structure, development, and physiology. Laboratory and tutorial.

Prerequisite: BIOL 225; BIOL 226 previously or concurrently.

3. Tentative Schedule:

Week of:	Topics covered	Textbook chapters
January 10	Tutorial: Introduction to the course and microscopy. Lab: Microscopy	--
January 17	Tutorial & lab: Prokaryotes	27
January 24	Tutorial & Lab: Protist diversity	28
January 31	Tutorial & Lab: Fungal diversity	31
February 07	Tutorial & Lab: Overview of animal phyla	32 & 33
February 14	Tutorial & Lab: Arthropods and molluscs	33

February 21	Tutorial & Lab: Vertebrates	34 & 47
March 07	Tutorial & Lab: Plant structure	35
March 14	Tutorial & Lab: Plant diversity	29, 30
March 21	Tutorial & Lab: Plant reproduction and development (Angiosperm)	38
March 28	Tutorial: Functional diversity (Dr. JSL) Lab: Review lab	
April 04	Tutorial: Biodiversity in Canada (Dr. ED) Lab: LAB EXAM	
April 11	Tutorial: Biodiversity –a philosophical approach (Dr. CC) Lab: No labs (term ends on April 13)	

4. Course material:

Textbook: Campbell Biology [ISBN:978-0-13-418911-6]
 Author: Reece et al.
 Publisher: Pearson
 Edition: Canadian Edition

5: Grading:

Quizzes	5%
Lab reports (X10)	20%
Biodiversity survey	10%
Lab exam	30%
Final Exam*	35%

6. Grading System (Undergraduate calendar 16.3):

Outstanding	Grade	Marks	Grade Points	Very Good	Grade	Marks	Grade Points	Satisfactory	Grade	Marks	Grade Points	Marginal Pass	Grade	Marks	Grade Points
	A+	90-100	4.30		B+	77-79.9	3.30		C+	67-69.9	2.30		D+	57-59.9	1.30
A	85-89.9	4.00	B	73-76.9	3.00	C	63-66.9	2.00	D	53-56.9	1.00				
A-	80-84.9	3.70	B-	70-72.9	2.70	C-	60-62.9	1.70	D-	50-52.9	0.70				
F	< 49.9	0	Poor - Failure												

Note that marks are not rounded (e.g., 79.999999% is still B+ but 80.000000% is A-).

7. Rights and Responsibilities:

<http://provost.concordia.ca/academicintegrity/plagiarism/>

8. Disclaimer:

"In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change".

9. Concordia University services to help students achieve academic success:

Academic advisors in biology: Dr. Ian Ferguson and Dr. Patrick Gulick. Make an appointment by contacting Ms. Leonie Morris at (514) 848-2424 x3400 or leonie.morris@concordia.ca.

Concordia Counselling and Development offers career services, psychological services, student learning services, etc.: <http://cdev.concordia.ca/>

The Concordia Library Citation and Style Guides: <http://library.concordia.ca/help/howto/citations.html>

Advocacy and Support Services: <http://supportservices.concordia.ca/>

Student Transition Centre: <http://stc.concordia.ca/>

New Student Program: <http://newstudent.concordia.ca/>

Access Centre for Students with Disabilities: <http://supportservices.concordia.ca/disabilities>

Student Success Centre: <http://studentsuccess.concordia.ca/>

Academic Integrity: <http://provost.concordia.ca/academicintegrity/>

Financial Aid and Awards: <http://web2.concordia.ca/financialaid/>

Health Services: <http://www-health.concordia.ca>