CAMOSUN COLLEGE
School of Arts & Science
Department of Biology

BIOL-090-B02
College Prep Biology
Winter 2020

COURSE OUTLINE

The course description is online @ http://camosun.ca/learn/calendar/current/web/biol.html

Ω *Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records, especially to assist in transfer credit to post-secondary institutions.*

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1. Instructor Information

(a) Instructor	Dominic Bergeron, PhD
(b) Office hours	Tuesdays 2:00 – 3:00; Thursdays 10:00 – 11:00; Fridays 10:00 – 12:00 AND by appointment
(c) Location	F 248 D
(d) Phone	250-370-3432
(e) E-mail	BergeronD@Camosun.ca
(f) Website	

2. Intended Learning Outcomes

Upon successful completion of this course, a student will be able to meet the following learning outcomes, as outlined in the 2018-19 BC ABE Articulation Guide (http://www.bctransferguide.ca/search/abe):

1. Explain the roles for the various molecules and macromolecules in cellular function;
2. Explain the structure and functions of cells and subcellular structures and compartments;
3. Describe the cellular and molecular processes of cell division, including mitosis, meiosis, DNA replication and gene expression;
4. Describe the cellular and molecular requirements for cell metabolism and the processes of cellular respiration, photosynthesis and carbon fixation;
5. Use the principles of Mendelian inheritance to solve genetics problems;
6. Using examples, explain how human body systems are under controlled by mechanisms of homeostasis;
7. Explain how and why the human body is organized at the cellular, tissue and organ levels;
8. Describe the structure and function of the digestive, cardiovascular, respiratory, endocrine, renal and reproductive systems;
9. Demonstrate effective use of laboratory reagents, equipment and microscopes;
10. Demonstrate the ability to accurately collect and process data in the laboratory setting;
11. Communicate experimental results, interpretations and conclusions effectively, including through formal lab reports.

3. Required Materials

(a) Recommended Textbook: Openstax by Rice University, 2017. Concepts of Biology. Available to download for free at openstax.org/details/concepts-biology.

(b) Lab Manual: Biology 090 Lab Manual (W2020), Camosun College. Available to download and print from the corresponding BIOL 090 D2L website.

(c) Lecture Outlines: Lectures will be delivered in a PowerPoint format during F2F sessions. This course being delivered in a blended format, video lectures will be available on D2L.

4. Course Content and Schedule

Scheduled dates are subject to change) Topics may be added or deleted depending upon time constraints

WK	WEEK OF	LECTURE TOPICS	LAB #	LAB TOPICS
1	Jan. 6 – 10 **F2F Meet**	**CHAPTER 1** Course Introduction Scientific Method	-	Safety / Meet / Greet / Practice
2	Jan. 13 – 17	**CHAPTER 2** Chemistry of Life	1	Measurements & Equipment
3	Jan. 20 – 24	**CHAPTER 3** Biological Molecules	2	Microscopes & Cells
4	Jan. 27 – 31	**CHAPTER 4** Tour of the Cell	3	Organic Macromolecules
5	Feb. 3 – 7 **F2F Meet**	**CHAPTER 5** Energetics **MIDTERM EXAM 1 (online)**	4	Diffusion & Osmosis
6	Feb. 10 – 14	**CHAPTER 6** Photosynthesis	5	Enzymes
7	Feb. 17 – 21	**READING BREAK – NO CLASSES OR LABS**		
8	Feb. 24 – 28	**CHAPTER 7** Cell Reproduction	-	**LAB EXAM 1 (online)**
9	Mar. 2 – 6 **F2F Meet**	**CHAPTER 8** Genetics	6	Mitosis & Meiosis
10	Mar. 9 – 13	**CHAPTER 9** DNA Replication	7/8	Genetics (Fingerprint lab & Cat lab)
11	Mar. 16 – 20	**CHAPTER 10** Protein Synthesis	9	Human Physiology
12	Mar. 23 – 27	**CHAPTER 11** **MIDTERM EXAM 2 (online)** Mutations / Gene Expression / Cancer	10	Reproduction
13	Mar. 30 – Apr. 3 **F2F Meet**	**CHAPTER 12 & 13** Homeostasis / Excretion / Nutrition / Digestion		TBA
14	Apr. 6 – 9 **F2F Meet**	**CHAPTER 14** Respiration / Respiration Reproduction		**LAB EXAM 2 (online)**
	Apr. 14 – 22	Exam Period **FINAL EXAM TBA**	-	-

5. Basis of Student Assessment (Weighting)

1.	Lab assignments	8%
2.	Lab report (osmosis)	2%
3.	Lab quizzes	5%
4.	Module quizzes	10%
5.	Midterm 1	10%
6.	Midterm 2	10%
7.	Lab exam 1	9%
8.	Lab exam 2	6%
9.	Final exam	20%
10.	Weekly learning journal	20% (10 x 2%)

6. Grading System

[X] Standard Grading System (GPA)

[ ] Competency Based Grading System

7. Recommended Materials to Assist Students to Succeed Throughout the Course

If help is needed, please consider taking advantage of our Biology Help Center for FREE drop-in tutoring and help: http://camosun.ca/services/help-centres/science-help.html#biol

8. College Supports, Services and Policies

Immediate, Urgent, or Emergency Support
If you or someone you know requires immediate, urgent, or emergency support (e.g. illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts @ http://camosun.ca/about/mental-health/emergency.html or http://camosun.ca/services/sexual-violence/get-support.html#urgent

College Services
Camosun offers a variety of health and academic support services, including counselling, dental, disability resource centre, help centre, learning skills, sexual violence support & education, library, and writing centre. For more information on each of these services, visit the **STUDENT SERVICES** link on the College website at http://camosun.ca/

College Policies
Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies. Policies are available on the College website at http://camosun.ca/about/policies/. Education and academic policies include, but are not limited to, Academic Progress, Admission, Course Withdrawals, Standards for Awarding Credentials, Involuntary Health and Safety Leave of Absence, Prior Learning Assessment, Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, Student Appeals, Student Conduct, and Student Penalties and Fines.

A. GRADING SYSTEMS *http://camosun.ca/about/policies/index.html*

The following two grading systems are used at Camosun College:

1. Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

2. Competency Based Grading System (Non GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes

Grade	Description
COM	The student has met the goals, criteria, or competencies established for this course, practicum or field placement.
DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for this course, practicum or field placement.

B. Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at http://camosun.ca/about/policies/index.html for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	*Incomplete*: A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	*In progress*: A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
CW	*Compulsory Withdrawal*: A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.