



CAMOSUN COLLEGE
School of Arts & Science
Department of Biology

BIOL-116
Advanced Placement Biology Lab
Winter 2022

COURSE OUTLINE

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

* 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.

1. Instructor Information

(a) Instructor	Ryan Suleman, MSc, BSc, RMCCM	
(b) Office hours	By appointment- Office 246 Fisher	
(c) Location	F244	
(d) Phone	email to set up a collaborate appointment	Alternative:
(e) E-mail	suleman@camosun.bc.ca	
(f) Website	https://online.camosun.ca/ and Google Classroom	

2. Intended Learning Outcomes

Upon completion of this course a student will be able to:

1. Use basic laboratory techniques to prepare standard solutions and perform serial dilutions.
2. Use a spectrophotometer for analysis of solutions, including preparation of action spectra of plant pigments.
3. Use plant bioassays for illustrations of the effects of selected plant hormones on plant germination and growth.
4. Illustrate the relationship between tonicity of a solution and movement of fluids into and out of cells.
5. Use a simple respirometer to assess the relationship between environmental conditions and the rate of cellular respiration.
6. Identify and classify a wide variety of selected organisms to their major taxonomic groupings, and identify their defining characteristics and structures.
7. Apply evolutionary principles to interpret and devise phylogenetic trees and dichotomous keys.
8. Identify evidence for evolution and discuss its significance to evolutionary theory.
9. Interpret evolutionary case studies and apply the Hardy-Weinberg theorem to calculate allele and genotype frequencies.

3. Required Materials

- (a) BIOL 116 Lab Manual (W2020) Camosun College. Labs will be posted weekly to D2L
- (b) Lined Lab Notebook (available at Staples)

4. Course Content and Schedule

Wednesdays 6:30-9:20pm, Lansdowne Campus, Fisher Building Room **F244**

BIOL 116 W2022 Schedule (Subject to changes)

DAY	DATE	LAB ACTIVITY
Wed	2-Feb-22	No Lab
Wed	9-Feb-22	Lab 1: Enzymes/Intro + Lab Safety and Report Style
Wed	16-Feb-22	Lab 2: Cellular Respiration (Fruit Fly Behaviour Discussion)
Wed	23-Feb-22	READING BREAK – NO LABS <i>Cellular Respiration Lab Report Due</i>
Wed	2-Mar-22	Lab 3: Photosynthesis (Fruit Fly Behaviour Preparation)
Wed	9-Mar-22	Lab 4: Fruit Fly Behaviour (Experiments)
Wed	16-Mar-22	Fruit Fly Peer Review of Posters Lab 5: Cell Division
Wed	23-Mar-22	MARCH BREAK – NO LABS <i>Cell Division Lab Report Due</i>
Wed	30-Mar-22	MARCH BREAK – NO LABS
Wed	6-Apr-22	Fruit Fly Poster Presentation Lab 6: Mathematical Modelling
Wed	13-Apr-22	Lab 7: Bacteria Transformation (Wk 1) Lab 8: DNA (Wk 1)
Wed	20-Apr-22	Lab 7: Bacteria Transformation (Wk 2) Lab 8: DNA (Wk 2)
Wed	23-Apr-22	Lab 8: DNA (Wk 3)
Wed	30-Apr-22	Lab 9: (TBD)
Wed	7-May-22	Lab Exam

5. Basis of Student Assessment (Weighting)

Pre-Lab Quizzes	10%
Lab Notebook / Preparation	5%
In-Lab Work	5%
Analysis Questions	10 %
Lab Reports	50 %
Final Exam	20 %

This lab mark will be combined with your other marks by your high school teacher to form your final grade for AP Biology. You will have your final lab mark entered into Camosun's records as your final grade for BIOL 116, based on the grading system outlined below.

6. Grading System

Standard Grading System (GPA)

Competency Based Grading System

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

D2L will have all required documents posted, including lab manuals, and rubrics for all assessment pieces.

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	<i>Incomplete:</i> 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	<i>In progress:</i> 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	<i>Compulsory Withdrawal:</i> 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.