



COURSE OUTLINE

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

Ω Please note: the College electronically stores this outline for five (5) years only.
It is **strongly recommended** you keep a copy of this outline with your academic records.
You will need this outline for any future application/s for transfer credit/s to other colleges/universities.

1. Instructor Information

(a)	Instructor:	Charles Molnar		
(b)	Office Hours:	TBA and by appointment		
(c)	Location:	F-340B		
(d)	Phone:	250 370-3449	Alternative Phone:	
(e)	Email:	molnar@camosun.bc.ca		
(f)	Website:			

2. Intended Learning Outcomes

(No changes are to be made to these Intended Learning Outcomes as approved by the Education Council of Camosun College.)

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

1. Demonstrate the basic principles of Mendelian and molecular genetics.
2. Use standard techniques of genetic analysis in laboratory experiments.
3. Apply principles of genetics to ethical issues relating to molecular genetics.
4. Define and explain basic genetics terminology.
5. Use and apply genetic principles in problem solving.

3. Required Materials

- (a) Textbook: Klug Concepts of Genetics. 10th edition. Pearson.
- (b) **BIOL 232 Laboratory Manual**

4. Course Content and Schedule

The following tentative schedule is subject to change if deemed necessary by the instructor.

COURSE SCHEDULE BIOLOGY 232 Winter 2014

The schedule that follows is an attempt to outline the daily activities of the class. It is subject to change or modification as the need arises.

Week of	TEXT CH.	LECTURE AND DISCUSSION	WEEK	LAB #	LAB TOPICS
Jan.6	1 2	Course Introduction, Genetics an Introduction Mendelian Genetics	1		Lab is ON Course intro., Fly crosses, lab intro. Soybeans planted,
Jan.13	2 3	Mendelian Genetics Mitosis, Meiosis	2		Problem solving; Intro to term project: Mitosis/Meiosis Lab Plant tissue culture, Fly work cont.
Jan.20	3 4	Chromosomal Inheritance, Sex Linkage	3		Modification of Mendelian Ratios, Chi squared Sordaria Lab week 1
Jan.23	4	Extensions of Mendelian	4		Sordaria Lab cont

	5	Analysis			Linkage Lab Cont.
Feb.3	5 7	Genetic Mapping and Linkage analysis	5		Polytene Chromosome Lab Linkage Lab scoring
Feb.10	7 9	MIDTERM I Extrachromosomal inheritance Chromosomal Mutations	6		Holiday Feb. 11 No Lab.
Feb.17	8	Chromosomal Mutations	7		LAB EXAM I Complementation in Serratia and Yeast week 1
Feb.24	10,11, 12	Topics in DNA replication and gene expression	8		Field trip Cytogenetics lab At Vic general Hospital.
Mar.3	16	Mutation	9		Complementation in Yeast Week 2 U.V. Mutagenesis Week 1 Action of Genes Lab
Mar.10	15 19	Mutation DNA technology	10		U.V. Mutagenesis Week 2 Complementation week 3 PCR week 1
Mar.17	19	MIDTERM II DNA technology	11		PCR week 2 Lecture Midterm 2 Genomics-Computer lab
Mar.24	20	Genomics	12		Proteomics lab trip
Mar.31	23	Genes and Development	13		No Lab April 1 is Holiday
Apr. 7	25	Population Genetics	14		LAB exam 2

Feb. 13-14 Reading break: Holiday Feb. 10. Last day to withdraw _____

March 10 Last day to Withdraw Exam Period April 14-25 **Do not book flights!** Exam schedule out in Feb. Wait!!!!

5. Mark Distribution:

LECTURE

Midterm Exam 1	10%
Midterm Exam 2	10%
Final Exam	25%
Scrapbook	5%
Assignments/Quizzes/Lab assign.	10 %

60%

LABORATORY

Midterm test	10%
Second test	10%
Term Project/Presentation	<u>20%</u>

40%

Midterms I and II, as well as the lab exams, will be unit exams.
The final lecture exam will be cumulative.
Please bring a pen *and* pencil to all exams.

6. Grading System

(No changes are to be made to this section unless the Approved Course Description has been forwarded through the Education Council of Camosun College for approval.)

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	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	1
0-49	F	Minimum level has not been achieved.	0

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 E-1.5 at camosun.ca 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, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. (For these courses a final grade will be assigned to either the 3 rd course attempt or at the point of course completion.)
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.

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

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College calendar, at Student Services, or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services, and the College web site in the Policy Section.

Please note: Plagiarism will not be tolerated in any form, and may result in "0".

No programmable devices are allowed in exams.

Each student is required to sign a Laboratory Safety Contract and give it to the instructor prior to commencing laboratory work in the course.

Attendance:

You are expected to attend all classes, and be on time. It is your responsibility to acquire **all** information given during a class missed, incl. notes, hand-outs, assignments, changed exam dates etc.

Missed exams or quizzes cannot be made up except in case of documented illness (doctor's note required). Lab attendance is *mandatory*.

Do not book trips etc in April until the exam schedule is known.

Labs:

A **1% final grade penalty** applies to any unexcused absence from lab. Frequent lates will count as an absence. Should you miss roll call at the beginning of lab, please identify yourself to the instructor as late or you may remain marked absent. Lab assignments can only be handed in for labs actually attended.

It is *absolutely* necessary to read and mentally work through each exercise before coming to lab. Otherwise you may not be able to finish on time, annoy your lab partner, or flunk a pre-lab pop quiz. You should expect a short pre-lab quiz at the start of each lab. Questions are drawn from the labs to be done that day

Assignments:

Unless otherwise stated, all assignments are due at the *beginning* of the lab/class of the due date. There is a **10%/day late penalty**. The format is expected to be professional, i.e. a neat, legible, clean copy. "Rough" drafts risk rejection and a subsequent late penalty. If the assignment is more than one page, **separate pages must be stapled before** you come to class.

Study Habits:

You will probably find Biology 232 not very difficult or very tough, but surprisingly labor-intensive. Good (and regular!!) study habits are required to do well in this course. You should plan on a *minimum* of 6 hours outside of scheduled class time for the completion of assignments and for general studying. Joining a study group can help this make more fun.

Lecture notes will be provided in point form. These should be used as a study guide, not as your sole source of information! You will need to write down additional key words for examples and explanations given during lecture. It is also recommended practice to transcribe these notes into a study-friendly format after each lecture, incorporating additional information from your textbook. Study these notes before the next class to prepare yourself for new material, which will often build on previously covered material.

Due to time constraints, not all details can be covered in lecture, and you may be held responsible for textbook material not specifically discussed in class. Please keep up with your readings, and take advantage of office hours if you need extra clarification and help, or simply would like to discuss a topic a little further.

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College Calendar, Registrar's Office or the College web site at <http://www.camosun.bc.ca>