

COURSE OUTLINE
Grading Systems



CAMOSUN COLLEGE
School of Arts & Science
Department

BIOL 232 Principles of Genetics
Winter 2016 – Section 001

COURSE OUTLINE

1. Course Information

Course Description

The cellular and molecular basis of the transmission of hereditary characteristics. Topics include Mendelian inheritance and its cytological basis, actions of genes in biochemical pathways, microbial genetics, linkage and gene mapping, DNA as the genetic material, the genetic code, gene action in development and differentiation, and the fundamentals of genetic engineering. (T)

Prerequisites: BIOL 230.

Pre or Corequisites: CHEM 255.

Time and Location

Lecture: T – 2:00-2:50 in F-214

W - 12:30-1:20:20 in F-344 F- 12:30-1:2- in F-206

Lab: M 2:30-5:20 in F-222

2. Instructor Information

Instructor: Charles Molnar

Office hours: TBA

Office location: F 340B

Phone: 370-3449

e-mail: molnar@camosun.bc.ca

3. Required Materials

(a) Textbook: Klug Essentials of Genetics. 9th edition. Pearson.

(b) **BIOL 232 Laboratory Manual**

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4. Course Content and Schedule

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

COURSE SCHEDULE BIOLOGY 232

Winter 2015

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	LECTURE AND DISCUSSION	WEEK	LAB TOPICS
Jan.11	Course Introduction, Genetics an Introduction Mendelian Genetics	1	Lab is ON Course intro., Fly crosses, lab intro. Soybeans planted, Micro practice. Term project etc.
Jan.18	Mendelian Genetics Mitosis, Meiosis	2	Problem solving; Intro to term project: Mitosis/Meiosis Lab Plant tissue culture, (Anna C.) Fly work cont. Sordaria lab
Jan.25	Chromosomal Inheritance, Sex Linkage (guest lecture)	3	Modification of Mendelian Ratios, Chi squared Sordaria Lab week 1 Karyotype exercise
Feb. 1	Extensions of Mendelian Analysis	4	Sordaria Lab cont Linkage Lab Cont.
Feb. 8	Genetic Mapping and Linkage analysis	5	No Lab.
Feb. 15	MIDTERM I Extrachromosomal inheritance Chromosomal Mutations	6	Polytene Chromosome Lab Linkage Lab scoring
Feb. 22	Chromosomal Mutations	7	LAB EXAM I Complementation in Serratia and Yeast week 1
Feb. 29	Topics in DNA replication and gene expression (guest lecture)	8	Field trip Cytogenetics lab At Vic general Hospital. Date may shift.
Mar. 7	Mutation	9	Complementation in Yeast Week 2 U.V. Mutagenesis Week 1 Action of Genes Lab
Mar. 14	Mutation DNA technology	10	U.V. Mutagenesis Week 2 Complementation week 3 PCR or other lab
Mar. 21	MIDTERM II DNA technology	11	PCR or other lab Lecture Midterm 2 Genomics-Computer lab
Mar. 28	Genomics	12	No Lab
April 4	Genes and Development	13	Proteomics lab trip. Date may shift.
Apr. 11	Population Genetics	14	Lab Exam 2

Feb. 18-19 Reading break: Holiday Feb. 8. Last day to withdraw March 14

Exam Period April 18-26 **Do not book flights!** Exam schedule out in Feb. Wait!!!!

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5. Basis of Student Assessment

Mark Distribution: (Tentative)

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**.

6. Grading System

The following percentage conversion to letter grade will be used:

A+ = 90 - 100%	B = 73 - 76%	D = 50 - 59%
A = 85 - 89%	B- = 70 - 72%	F = 0 - 49%
A- = 80 - 84%	C+ = 65 - 69%	
B+ = 77 - 79%	C = 60 - 64%	

ADDITIONAL INFORMATION

General:

Be sure that you are familiar with the General Department Policies, which are stated in the lab manual. A student conduct code will also be observed.

ACADEMIC CONDUCT POLICY

There is an Academic Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section.

www.camosun.bc.ca/divisions/pres/policy/2-education/2-5.html

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

No programmable devices are allowed in exams.

Attendance:

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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>