

COURSE OUTLINE
Grading Systems

CAMOSUN COLLEGE
School of Arts & Science
Department

BIOL 232 Principles of Genetics
Winter 2005 – 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: M,Tu,W 11:30-12:20 in F200(M,W), F268(T),

Lab: Section001: Th 4:30-7:20 in F222

2. Instructor Information

Instructor: Charles Molnar

Office hours: TBA

Office location: Richmond House 302 Can be tricky to find!! Next to the greenhouse. Go out the west door (past the printshop and receiving), in the same house as the student health insurance office and the birth control clinic. I am on the top floor.

Phone: 370-3449

e-mail: molnar@camosun.bc.ca

3. Required Materials

(a) Textbook: Booker Genetics Analysis and Principles. 2nd edition. McGraw Hill.

(b) **BIOL 232 Laboratory Manual**

Optional: Student Study Guide for *Booker Genetics*.

COURSE OUTLINE

Grading Systems

4. Course Content and Schedule

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

COURSE SCHEDULE BIOLOGY 232

Winter 2005

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.10	1 2	Course Introduction, Genetics an Introduction	1		No Lab
Jan.17	2 3	Mendelian Genetics Mitosis, Meiosis	2	1	Microscopes, Fly, Microbe handling, Safety, Problem solving Mitosis/Meiosis Rye Anthers
Jan.24	3	Chromosomal Inheritance, Sex Linkage	3	2	Modification of Mendelian Ratios, Chi squared
Jan.31	4	Extensions of Mendelian Analysis	4	4	Field trip Cytogenetics lab ("Grand rounds") Subject to Change!!
Feb.7	5	Genetic Mapping and Linkage analysis	5	7	Mapping in Drosophila and Sordaria No Class Thursday Reading Break
Feb.14	7 8	MIDTERM I Extrachromosomal inheritance Chromosomal Mutations	6		No Lab Exam 1 held during lab time.
Feb.21	8	Chromosomal Mutations	7		LAB EXAM I
Feb.28	11,12, 13	Topics in DNA replication and gene expression	8	8	Complementation in Serratia and Yeast
Mar.7	16	Mutation	9	8	Complementation in Yeast Week 2 U.V. Mutagenesis Week 1
Mar.14	16 18	Mutation DNA technology	10	6	U.V. Mutagenesis Week 2
Mar.21	19	MIDTERM II DNA technology	11		Stressgen field trip
Mar.28	20	Genomics	12	9 10	PCR Lab week 1 Genomics-Computer lab Held in _____
Apr. 4	23	Genes and Development	13	9	PCR lab 2 Student presentations
Apr. 11	25	Population Genetics	14		LAB exam 2

March 14 Last day to withdraw.

Easter No Classes Friday 25th or Monday 28th

Exam Period April 18-23, 25-26

COURSE OUTLINE

Grading Systems

5. Basis of Student Assessment

Mark Distribution: (Tentative)

LECTURE	
Midterm Exam 1	12.5%
Midterm Exam 2	12.5%
Final Exam	30%
Assignments/Quizzes/Lab assign.	10 %
Scrapbook _____	5%
	70%
LABORATORY	
Midterm test	10%
Second test	10%
Term Project/Presentation	10%
	30%

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

The following percentage conversion to letter grade will be used:

A+ = 95 - 100%	B = 75 - 79%	D = 50 - 59%
A = 90 - 94%	B- = 70 - 74%	F = 0 - 49%
A- = 85 - 89%	C+ = 65 - 69%	
B+ = 80 - 84%	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.

COURSE OUTLINE

Grading Systems

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." You need to attend labs and lab exams during your assigned section (A or B). 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.

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

COURSE OUTLINE
Grading Systems

Calendar, Registrar's Office or the College web site at
<http://www.camosun.bc.ca>