

Genetics Lecture Syllabus Spring 2011

<u>T/R</u>	<u>DATE</u>	<u>Topic</u>	<u>Read Before Class</u>	<u>Evaluation</u>
R	Jan. 13	Complexities of the Central Dogma		
T	18	Laboratory Prep: Cancer Genetics	How Cancer Arises	
R	20	Nucleic Acid and DNA Replication	DNA Structure Review DNA replication Review Chapter 1.2, 10.1-10.4, 10.6 11.1, 11.3-11.7	
T	25	DNA replication Continued DNA Recombination	DNA Recombination Review Ch 11.8-11.9	Quiz 1
R	27	Chromatin; DNA Organization	Chromatin Review Ch 12.4-12.7	
T	Feb. 1	Mutations	Mutations Review Ch 16.1-16.3	Quiz 2
R	3	DNA Repair	DNA Repair Review 16.6-16.7	
T	8	DNA Repair, Checkpoints, And DNA Replication	Cell Cycle Review	
R	10			EXAM I
T	15	Gene Expression	Gene Expression 1 and 2 Reviews Ch 14 and 15	
R	17	Gene Expression Continued	Gene Expression 1 and 2 Reviews Ch 14 and 15	
T	22	Regulation of Gene Expression	Regulation of Gene Expression Review Ch 18	
R	24	Regulation of Gene Expression	Regulation of Gene Expression Review Ch 18	Quiz 3
T	March 1	Chromosomes and Heredity: Mitosis	Mitosis Review Ch 2.2-2.3	
R	3	Regulation of the Cell Division: Genetics of Cancer	Ch 20	
T	8	Chromosomes and Heredity: Meiosis	Meiosis Review Ch 2.4, 2.7	
R	10			EXAM II
T	15	Spring Break		NO CLASS

R	17	Spring Break		NO CLASS
T	22	GO TO LAB		GO TO LAB
R	24	Mendel and the Chromosome Theory of Inheritance	Mendel Review Ch 3	
T	29	Gene Interactions	Exntensions of Mendel Review Ch 4	
R	31	Genetic Dissection of Biochemical Pathways		Quiz 4
T	April 5	Pedigrees and Genetic Mapping	Linkage and Mapping Review Ch 5	
R	7	Extranuclear Inheritance	Ch 9	
T	12	Functional RNA		
R	14			EXAM III
T	19	Population and Conservation Genetics	Ch 27 and 29	
R	21	Easter Break		NO CLASS
T	26	Student Presentations		Oral Presentation Lab Report Due
M	28	Student Presentations		Oral Presentation
		Final Exam	Monday, May 2 at 1:00	FINAL

PROFESSOR: Dr. Mary E. Miller

GRADING POLICY:

There will be a total of 600 possible points in the class. You will receive the same grade for the lecture and laboratory sections of this course.

1. **240 points** (80 pts each) will come from the first three Exams. Exams may include objective (in class short answer, multiple choice, graphs, matching, problem solving) and subjective (take home essay) portions. Make up exams will not be offered, unless extreme circumstances exist.

To allow for some adjustments on your part for my teaching, possible sickness, or the occasional “bad day” that might influence one of your test grades, you will be allowed to *average* your final grade with one of your three exam grades (using percentile equivalents, and only if this will improve your overall grade).

2. **80 points** will come from the cumulative final. The final exam will be a comprehensive, closed-book, timed exam. No make-up final exams will be given.

3. **70 points** will come from participation and quiz/clicker/seminar summaries.

In Class Discussions – 20 points. A total of 20 points and will be awarded for meaningful in class participation. You are expected to read all assignments and be ready to answer as well as ask questions about these materials.

Seminar Summaries/Quizzes/Clicker questions – 50 points. You will be required to attend two departmental seminars and write a one to two page written summary of each. Each summary will be worth 5 points, for 10 points total. Seminar summaries will be accepted up to one week after the date of the seminar. Clicker questions and quizzes will be given through the semester, at times without warning. Scheduled Quizzes are worth 5 points each for a total of 20 points. Your performance on clicker questions will be recorded and count towards 20 points of your grade.

4. **20 points** will come from research presentation and a written summary of the presentations on a topic of the student’s choice. Presentations will be given during the last weeks of classes.

5. **190 points** will come from your Laboratory grade.
The laboratory grade is explained in the laboratory syllabus.

6. **The honor code applies to all work done in this course.**

7. Your first three absences from the class will not impact your grade (no matter what the reason). **The fourth absence will result in a 5 POINT REDUCTION from your total points in the course.** Three additional absences (at total of seven) will result in an

additional 5 point reduction from your total points in the course. Further absences will result in further penalty of points at the instructor's discretion.

8. You are expected to get to class on time. **If you are late to class three times, this will be considered the equivalent of one absence** (see 7 above). Further tardiness will result in further penalty of points at the instructor's discretion.

9. You will not be allowed to leave the classroom once a timed in class exam has begun. Exams are designed to last approximately 45 minutes to one hour, and should be manageable in this sense.

The Grading Policy is summarized below:

Lecture

3 exams	240 points
Cumulative final	80 points
Quizzes/Participation/Summaries	70 points
Research Project Presentation	20 points

Laboratory

<u>190 points</u>
600 points

Your grade will be determined by the total number of point accumulated during the semester in both the lecture and laboratory sections of the course. The grading scale below will be used to determine the letter grade that will be assigned for ranges of points earned in the course. **This same letter grade will be assigned for both of the Biology 304 and 304L courses.**

Grading scale:

<u>Points</u>	<u>Grade</u>
558-600	A
540-557	A-
522-539	B+
498-521	B
480-497	B-
462-479	C+
438-461	C
420-437	C-
402-419	D+
378-401	D
360-377	D-
359 and below	F

No laboratory or lecture reports, quizzes or exams may be turned in beyond the scheduled time unless medical or personal emergency warrants it. In such cases, the professor must be consulted for approval **prior** to the deadline or as soon after as possible. In some cases, students may obtain permission from the professor to complete an assignment prior to the scheduled deadline. Missed assignments for unexcused reasons will receive a grade

of 0. This policy holds true for laboratory assignments as well as Lecture exams and quizzes. The cumulative final in the laboratory is a practical exam, meaning that in addition to testing knowledge and synthesis of content presented in the laboratory exercises, the student will be required to carry out some physical aspects of the laboratory exercises (ie, streaking plates, identifying morphologies, working with arrays). For this reason, no makeup will be available for the cumulative laboratory final. Please plan ahead so that you will not miss this date.

Statement on attendance to laboratory:

Attendance is mandatory. Lack of attendance will result in a reduction in grade. If you are unable to attend laboratory on Tuesday afternoons because of extracurricular activities, you should not take this course.

Resources for this course:

1. **Lectures** — The lectures are aimed at explaining the material, showing you problem solving strategies, and helping you to focus on the concepts that are emphasized in the course. You are responsible for material covered in the lectures as well as specified reading assignments. Selected **PowerPoint presentations** from lectures will be put on academic volume and you are encouraged to download these presentations prior to class.

2. **Office hours** are 1:00 – 3:00 on Mondays – though I encourage you to meet with me as you need help, throughout the week. You can come by my office or set up an appointment.

3. **Textbook** — Concepts of Genetics (9th Edition). Klug, Cummings, Spencer, Palladino, Pearson Publishing.

Statement on inclement weather:

It is incredibly rare for me to cancel class.

If Rhodes is open, I will get here. If Rhodes is open – COME TO CLASS.

The College notifies if Rhodes closes or if its daily schedule is altered by:

1. A phone message that can be accessed by all students, faculty and staff. The number is 843-3943.

2. Local media stations: WMC-TV, Channel 5, WREG-TV, Channel 3, WMC AM 790, WREC AM 600, WKNO FM 91.1, WMC FM 100, WEGR FM Rock 103

Please do not call local media stations for closing or opening information.

They will report on air what Rhodes College officials have communicated to them as soon as our decision has been made known to them..