

Course Information and Syllabus

Instructor: Dr. Jon Scales
 Lab: MT 2-5 Rm 205
 Email: jon.scales@mwsu.edu

Office: BO 218
 Office Hrs: see door card
 or email for an appointment

Prerequisites: Life I with grade of C or better. Recommended: O-Chem

Course Materials:

Text: Genetic Analysis: An Integrated Approach, Sanders & Bowman 3rd ed.

Mastering Genetics: Accessed through D2L

Lab Manual: Biol 3334 Genetics Lab Manual, Purchase from MSU bookstore. New lab manual required. Lab book required at 1st lab.

Philosophy:

Genetic principles underlie virtually every area of biology. The concepts and principles by which we understand the passage of heritable information is crucial to our understanding of virtually everything else in biology and biology-related fields.

In this course, we will cover aspects of molecular and classical genetics. We will learn how genetic principles underpin our current approaches to studying biology.

The objectives of this course are to gain a factual knowledge base in genetic terminology and concepts, to hone your analytical problem solving skills, and to gain an appreciation for the practice of the biological sciences.

Attendance: Attendance is crucial to successful performance in this course. I expect participation from students and you can't do that if you're not here. **Attendance to lab is mandatory. You can only miss 1 lab! Students will be dropped from lab on their 2nd absence. You will also be dropped from the lecture. There are no make-up tests, quizzes, assignments, extra-credit work, etc.... Don't even ask.**

Examinations & Quizzes

There will be periodic quizzes in lecture and weekly quizzes in lab. Be prepared! Quizzes will be given at the beginning of lecture & lab periods. Quizzes will be approximately 10 minutes in duration. Lowest quiz scores for 1 quiz in lecture and lab are dropped. There are no make-up quizzes.

There will be midterm and final exams in lecture and a comprehensive final exam in lab.

There are online homework and quiz assignments which must be completed by the due dates. Take note of those dates and times. The dates may change, but any changes will be announced during lecture. There are no make-ups for these assignments. These assignments will be through the Mastering in Genetics site.

The comprehensive lab final exam will be combined for both lab sections and take place on December 5th from 6:00-8:00 PM. Make all necessary arrangements NOW to take the lab final at this time!

Grading and Point Assignments:

A ≥ 90	B ≥ 80	C ≥ 70	D ≥ 60	F < 60
	Lecture Quizzes -----	10%		
	Online Quizzes -----	10%		
	Online Homework -----	10%		
	Midterm & Final -----	20% each		
	Lab -----	30% (55% WU, 10% Q, 20% FE)		

Rules & Regulations:

Students should refer to the current MSU handbook and activities calendar for university policy on academic dishonesty, class attendance, student rights and activities.

Cheating of any kind will result in no credit for that assignment, quiz, or exam. Repeated offense will result in dismissal from the course with a grade of F.

Students displaying disruptive behaviors will be reported to the Office of Students Rights and Responsibilities. Disruptive behaviors are grounds for dismissal from the course as noted in the student handbook p27:

Instructor Drop

An instructor may drop a student any time during the semester for excessive absences, for consistently failing to meet class assignments, for an indifferent attitude, or for disruptive conduct. The instructor must give the student a verbal or written warning prior to dropping the student from the class. An instructor's drop of a student takes precedence over the student initiated course drop of a later date. The instructor will assign a grade of either WF or F through the first 9 weeks of a long semester, the first 4 1/2 weeks of an 8 week part-of-term, the first 6 weeks of a 10 week summer term, or the 12th class day of a 4 or 5 week summer term consisting of 20 days. After these periods the grade will be an F. The date the instructor drop form is received in the Office of the Registrar is the official drop date.

A student dropped from a class by a faculty member for disruptive behavior has the right of appeal to the Student Conduct Committee through the Office of Student Rights and Responsibilities (CSC 108).

The above paragraphs serve as your one and only verbal and written warning.

Cellular device usage during lectures is prohibited. No laptops may be used for note taking during lectures. Tablet type devices which are written on using a stylus are permitted. Audio recording of lectures is permitted with prior permission from the instructor. Audio recording may not be done on a cellular device, but only with a device specifically for audio recording. No video or photographic recording during lecture is permitted. Students violating any of these restrictions may be dropped from the course.

Students that have been certified through the office of Disability Services with disability accommodations must provide documentation from that office. Students must abide by all published procedures for taking **exams** through the DSS office with accommodations.

Tentative Topic Schedule

Week	Lecture Topic	Chapters	Week	Lab Topic
1	Overview of Genetic Terms	1	1	Cell Division
2-3	Mendelian genetics & variations	2 & 4	2	NO LABS – Labor Day
3-4	Linkage & mapping	5	3	<i>Z. mays</i>
5	Bacterial Genetics	6	4	<i>Z. mays</i>
6	Chromosome & DNA structure	7	5	<i>D. melanogaster</i> P crosses
7	DNA replication		6	<i>S. cerevisiae</i>
8	Midterm Exam		7	<i>Drosophila</i> F1 crosses
8-9	Transcription	8	8	<i>S. cerevisiae</i>
10-11	Translation	9	9	<i>Drosophila</i> F ₂ & Mapping
11	Gene level mutation	12	10	<i>C. elegans</i>
12	Prokaryotic Gene Regulation	14	11	<i>C. elegans</i> RNAi
13	Eukaryotic Gene Regulation	15	12	Human Genetics
14	Transgenics	16	13	Human Genetics
15	CRISPR		14	Human Genetics & Review
Dec 14	Final Exam: 8:00 – 10:00 AM		Dec 5	Final Exam 6:00PM-8:00PM