

# GENETICS SYLLABUS

**Biology 310; Fall 2006; 5 credits; Monday-Friday; 12-1pm**

Additional Study Groups and Demo Labs on Wednesdays and Thursdays Mornings

Instructor: Charlie Herr., Office Sc 237; Laboratory Sc 236; Phone: 359-2038; Scheduled office hours are 11:00 am - 12:00 pm ; Mondays through Fridays, or by appointment. Text: *Principles of Genetics* 4<sup>nd</sup> Edition by Snustad and Simmons



Chapter	Topic	Homework	Practice Exams	Dates
1	<a href="#">The Science of Genetics</a>			Sept. 24
2	<a href="#">Reproduction Overview</a>	<a href="#">Meiosis &amp; Meiosis</a>		25
3	<a href="#">Mendel, Peas and Statistics</a>	<a href="#">Set1 &amp; Set2</a>		26-
4	<a href="#">Extensions of Mendelism</a>	<a href="#">Statistics</a>		-Oct 3
	<b>Exam 1, Chapters 1-4, 100 Points</b>		<a href="#">A &amp; B</a>	Oct. 6
5	<a href="#">Chromosomes</a>	<a href="#">Sex linkage</a>		7
6	<a href="#">Variation in Chromosome Number</a>	<a href="#">Cytogenetics</a>		8-9
7	<a href="#">Linkage and Mapping</a>	<a href="#">Set1 &amp; Set2</a>		10-14
	Review			15
	<b>Exam 2, Chapters 5-7, 100 Points</b>		<a href="#">Cyto and Map</a>	16
9	<a href="#">Chemistry of the Gene</a>			17
10	<a href="#">DNA and Chromosome Replication</a>	<a href="#">DNA Homework</a>		20-21
11	<a href="#">Transcription and RNA Processing</a>	<a href="#">Transcription</a>		22-
12	<a href="#">Translation and the Genetic Code</a>		<a href="#">The Code 1</a>	-24
	<b>Exam 3, Chapters 9-12, 100 Points</b>		<a href="#">The Code 2</a>	27
13	<a href="#">Mutation DNA Repair and Recombination</a>	<a href="#">Mutations</a>		28-Nov.30
8	<a href="#">Genetics of Viruses</a>	<a href="#">Virus</a>		31-
8	<a href="#">Genetics of Bacteria</a>	Same as Above		-5
	<b>Exam 4, Chapters 13 and 8, 100 Points</b>		<a href="#">Mutants</a>	6
15	<a href="#">The Techniques of Molecular Genetics</a>	<a href="#">Biotech HW</a>		7-14
20	<a href="#">Regulation of Gene Expression in Prokaryotes</a>	Same as Above		17-18
	<b>Exam 5, Chapters 15 and 20; 100 Points</b>			20
	<a href="#">Population Genetics</a> (WWW <a href="#">Supplement.pdf</a> ) (See index) Study during your Thanksgiving break. No class Wednesday (travel day for Thanksgiving)	<a href="#">Population Genetics HW</a>		21-24
	<a href="#">Quantitative Genetics Equilibria</a> (WWW <a href="#">Supplement.pdf</a> ) (See index) Study during your Thanksgiving break.	<a href="#">Poly Genes HW</a>		1-Dec. 4
	<b>Final Exam, 200 Points (12:00-2:00pm)</b>		date	scheduled

*The above schedule is tentative.*

You are expected to read the syllabus and know its contents.

The successful study of genetics requires an approach similar to that needed for math or chemistry. Students must work on assignments every day. Procrastinating study until just prior to exams generates poor results. If a student fails to study daily, he or she should accept personal blame for the poor outcome. Any student who is too busy to come to class, study, and make exam dates; please consider taking genetics some other quarter when the pace or nature of the course might be more suitable.

We each have our own responsibilities and workloads. Mine is to prepare learning materials, lecture, answer questions, prepare exams, grade exams, and calculate your achievement toward mastering genetics. Yours is to learn the materials, come to class, turn in assignments, study for exams, take exams on time, and contribute positively to the learning environment.

Testing will place primary emphasis on understanding mechanisms, the geneticists' approach to problem solving and general paradigms. Half the final will be on the material covered after the fifth scheduled test. The balance will be comprehensive.

Makeup exams are not a means to delay a student's test date. When given, makeup exams are **always** different, and often tend to be more difficult. Only students with compelling and documented excuses are allowed to take them. Otherwise, the student will be denied the opportunity and will receive a zero score for the missed exam.

It is essential to your success that you read the assigned readings **prior** to the corresponding lectures. Three quizzes will be unannounced and are designed to verify that the reading assignments have been completed as already described. These quizzes will be on the assigned reading material and will be administered **prior** to the corresponding lectures. These quizzes will have a maximum value of 100 points and will cover no more than the information found in one assigned reading chapter. Only the two quizzes with the highest score from all the unannounced quizzes will be used to calculate your final score. If for some reason you are not present during an unannounced quiz, the dropping of the lowest score will protect your final score. If you are absent during two unannounced quizzes, you will receive a 0% score for a quiz. There will be no makeup test for unannounced quizzes. There will be no acceptable excuses for missing an unannounced quiz.

Problems will be provided and will be due the day after the exam that corresponds to the material covered in the homework. **Late returns will not be accepted.** Term-total points from these assignments will be 100 points.

As in all serious testing environments, you cannot leave the room during an exam to get a drink, go to the bathroom or for any other reason, and then expect to resume testing. If you have a health problem that prevents you from remaining in the classroom until you have completed the exam, inform me and I will arrange special test taking accommodations. Even if I know you as an honest student, the fact that I permit you to leave and come back will require me to allow everyone to do so. I have had several negative experiences allowing students to resume testing after going to the bathroom. If a student simply leaves the classroom and then resume testing, I will note this on his or her exam, and then deduct half of the exam's points without discussion.

Cheating on exams will result in a zero point score for the entire course. Additionally, the student might be reported to the EWU committee responsible for handling this issue. This will likely result in a recording of the incidence on the student's permanent record.

There are a total of 1000 points possible for the term from the above sources. A maximum of 100 additional discretionary points can be awarded. Your grade will be directly calculated from a total possible of 1000 points. Therefore, the discretionary credit points might be considered extra credit. Maximum total discretionary points are achievable with **perfect attendance** and **positive** contributions to the classroom environment. *(Contributing negatively to the classroom learning environment will result in a loss of points.)* With the discretionary points, total possible points are 1100, so it is quite possible to achieve a score above 100%!

Please let me know if you have an emergency that provides a **compelling** reason for you not being able to attend class. I need a letter signed by you describing the compelling reason with the date of the absence within 2 days of your return for my records for use during final score calculation. Viable excuses do not include such events as going on a family vacation. Attendance will be monitored during the quarter and verified for accuracy. Dishonesty in regard to attendance will be considered in the same manner as other forms of academic dishonesty.

Genetics is a challenging, but intellectually worthwhile subject and I hope you enjoy it as much as I do.

**Class attendance is essential; if you know you might be missing classes, withdraw today.**

**Good Luck ; I hope you enjoy taking my course at least half as much as I enjoy teaching you!**