BIOL 310 - GENETICS
Syllabus, Fall 2016

Instructor: Dr. Barrie Robison <brobison@uidaho.edu> LSS 266B
Office hours: Tuesdays 11:00 – 12:00, or by appointment (preferred)
Cell Phone: 509 432 3782 (No calling or texting after 9pm)

COURSE WEBSITE: The materials for the course can be accessed through the University of Idaho BbLearn System.

COURSE PREREQUISITES: Biol 115: Cells and the Evolution of Life. You should have at least one semester of chemistry. If you do not have these prerequisites, you should see Dr. Robison immediately.

LEARNING OUTCOMES: In accordance with UI Learning Outcomes, it is expected that students will:
- Learn & Integrate: Students will apply their previous training in biology to solve genetics problems and understand the relationship between genetics and other biological disciplines.
- Think & Create: Students will be able to apply the concepts and approaches learned in this course to solve problems they encounter in future courses and later in their careers.
- Communicate: Students will be able to effectively communicate genetic concepts and interpret genetic data.
- Clarify Purpose & Perspective: Students will understand the relationship between genetics and society.
- Practice Citizenship: Every student should be able to articulate basic genetic concepts to a lay person, in a manner that demonstrates how fundamental the field of genetics is to our everyday lives.

TEXT: Genetics: A Conceptual Approach, Fifth Edition:
The required textbook for this course is Pierce, Genetics: A Conceptual Approach, Fifth Edition. If you aspire to a career in biology, this is a textbook you will likely want on your bookshelf for the next 5 years. It will be highly useful for future exams (like the GRE or MCAT), interviews, and other professional opportunities. You are also required to subscribe to sapling learning, which is necessary for the online homework.

OTHER CLASS MATERIALS: Lecture Notes and other materials will be posted on the course website. I generally do not post my lecture notes until after class. If you feel you would benefit from reviewing the material prior to lecture (an excellent strategy in my opinion), you should consider reading the appropriate section of the textbook in advance of each lecture.

GENERAL CONSIDERATIONS: This is a survey course, and as such it will cover a great deal of material. We will examine classical experiments and methods in detail to teach you to interpret data and think like a geneticist. Genetics is one of the central subjects in all of biology, so the approaches we discuss here are used in such diverse disciplines as microbiology, behavior, physiology, ecology, and evolutionary biology.

Problem solving in genetics is based on logic and requires solid mathematical skills. Some of you may find this aspect of the course quite different from other courses you have taken in biology. As with many skills, your performance will improve with practice. This is not a course where you can get a B just
by memorizing vocabulary (although you will learn an extensive new vocabulary), and genetics does not lend itself to "cramming." I would suggest that you start preparing for the first exam now. Study groups that meet regularly can be an excellent way to master this material.

You are responsible for both the lecture material and the assigned reading. Lectures will be used to stress basic principles, explain complex concepts, and supplement the text. Many lectures will include current topics in genetics that have minimal coverage in current texts, therefore regular attendance is advised. This is the only way to give you an up-to-date course in a field that moves as quickly as Genetics. Each lecture will be given with the assumption that you have read the assigned material.

Calculators will be required during most exams, but devices that can access the internet are prohibited. All books and notes should remain out of your sight, and there will be no talking during exams. No one may leave the room once the exam has begun. I will not answer questions or give hints during an exam except to clarify typographical errors.

Office hours are times set aside for your benefit, so don't wait until you are in big trouble or the day before an exam to use them. This year, I am going to continue my experiment with online office hours (in addition to in person meetings of course). I'm first going to try using Twitch.TV, to see how that works. I have posted many youtube videos in which I solve questions from old exams as well.

EXAMS: There are 5 exams. The fifth exam is delivered during the scheduled final exam period. Exam 5 is intended to last one hour, and covers the material from the final section of the course. Questions or challenges related to the grading of an exam (or other assignment) must be turned in to Dr. Robison in writing by 5:00 pm within the following 3 school days after the exam or assignment is returned to you. You should include the exam in question and a written explanation of your question or challenge. If an exam is turned in for re-grading, any other grading errors found will also be corrected.

MISSING EXAMS: No make-up exams will be given except with a valid excuse (documented illness, family emergency) or by prior arrangement for University related responsibilities (such as athletic events). Excuses for University related responsibilities must be arranged in writing in advance of any missed exam. Illness or other emergency must be documented in writing (for example, through Student Health) within 3 school days of a missed exam. Make up exams are scheduled by appointment with Dr. Robison, and their format and content (but not coverage) may vary substantially from the normal class exam.

ONLINE HOMEWORK: Online homework will be administered through sapling learning and will (in total) contribute 100 points toward your grade. You may use your homework grade to replace your lowest exam score.

ACADEMIC HONESTY: All students are expected to uphold the highest standards of academic honesty. This includes but is not limited to: not cheating, not giving or taking help during exams, not using the ideas of others without giving appropriate credit (including Wikipedia!), and not giving false excuses for missed classes or exams. Any incident of academic dishonesty will be referred to the Dean of Students Office.

GRADING POLICY: Your grade will be based on a total of 500 possible points. five 50-minute exams are worth 100 points each, and the online homework will also be worth a total of 100 points. I will use your five best scores from the five exams and the homework to determine your final grade. Your final grade will be the grade you earn - no deals, no plea bargains. The grading scale is standard: A (90 -100 %), B (89 - 80 %), C (79 - 70 %), D (69-60 %), F (below 60 %).