

**Instructor:** Giulia JG Ruben M.S., Ph.D.

**Time and Place:** M/T/W/Th 9:00 – 11:00am in Jack Baskin Auditorium 101

**Contact:** [gruben@ucsc.edu](mailto:gruben@ucsc.edu)

**Office Hours:** Thursdays 1-3pm in Sinsheimer 127

**Teaching Assistants:**

Adam Aharon, [aaharon@ucsc.edu](mailto:aaharon@ucsc.edu), Office Hours TBA

Anthony Gilmore, [aegilmor@ucsc.edu](mailto:aegilmor@ucsc.edu), Office Hours TBA

**Discussion Sections:**

Wednesday 2:00pm, Location TBA

Thursday 12:00pm, Location TBA

Friday 11:00am, Location TBA

Friday 1:00pm, Location TBA

**Prerequisites:** BIOL20A and BIOL20B

BIOL105 will cover Mendelian and molecular genetics; mechanisms of heredity, mutation, gene action, recombination, gene linkage, mapping, and epigenetics.

Problem sets will be assigned for students to familiarize themselves with and practice the application of genetic principles. Problems sets, quizzes and a final examination will determine the student's grade in the course.

\* Please Note: BIOL105 is a challenging course that most students find needs more of their time and attention than they originally thought. When taken during a 5 week summer session, students should anticipate this course will require several hours per day of studying in addition to lecture and discussion section in order to succeed- *it will be like a full-time job for 5 weeks*. Students are *strongly advised* to consider this, and arrange their schedules accordingly from the first day of class. Getting even one day behind in summer session can be extremely costly.

**Textbook:** *Genetics: From Genes to Genomes*, Hartwell et al., 5<sup>th</sup> Edition (UCSC Custom)

**eCommons:** BIOL105 for Summer 2015 is up on eCommons, where you can find a copy of the syllabus, and any posted course materials (including lecture slides and problem sets).

**Attendance and Reading:** Attendance in lecture and discussion sections will be of *critical* importance to the student, in addition to reading the textbook. Genetic principles and theory will be covered in the text, and in lecture, while a majority of problem set support will be provided in discussion section and during office hours.

*This course will not be podcast.*

**Problem Sets:** Weekly problem sets will be assigned for students to familiarize themselves with the application of genetic principles and *require* that students attend lecture, do the assigned reading and are comfortable with basic mathematical probabilities. These problem sets are intended to reinforce fundamental principles, foster critical thinking, and serve as a study guide for exams. Problem sets will be addressed during discussion sections.

There will be 4 problem sets, each due *before lecture begins* on Monday (weeks 2-5). The problems that make up the problem set will be assigned on a daily basis at the end of the lecture, and posted. This structure is meant to encourage students to leave lecture and work on problems relevant to the day's topics *immediately* in order to keep current with material and allow for questions and problems to be addressed during the discussion sections later in the week.

One or two random problem(s) for each weekly problem set will be graded. Students will not be told ahead of time which problem(s) will be graded, and part of the problem set score will include an assessment of problem set completeness. Students are encouraged to work together in the solving of problems, but must turn in their own original work (see section on academic integrity below). Problem sets must be legible in order to be graded (otherwise a zero score will be assigned).

**Quizzes:**

There will be 3 in class quizzes (weeks 2, 3 and 4) structured very similarly to problem set problems in order to assess the student's ability to understand, apply and explain genetic principles. These quizzes will be given at the beginning of lecture. Students who arrive late to lecture will not be given additional time at the end of the allotted quiz time.

**Final Exam:**

A comprehensive final exam will be given during lecture time on Thursday August 27<sup>th</sup> from 9-11am. Exam format will be varied but will include solving problems very similar to the assigned problem sets, and may include multiple choice, fill in the blank and short answer questions. No make-up exams will be given except in cases of proven medical emergencies as approved by Dr. Ruben. *No exceptions.*

**Student Evaluation and Grading Policies:**

4 problem sets (10 points each) = 40 points  
3 quizzes (20 points each) = 60 points  
Final Examination (100 points) = 100 points  
TOTAL = **200 points**

There is no extra credit.

Quiz/exam re-grade policy requires re-submission of an exam with a written request for re-grade *within 3 days* of being handed back. In order to be considered for a re-grade, quizzes and exams *must* be written in INK. The instructor reserves the right to re-grade the entire exam, this can result in a gain, loss, or no effect on points.

Late assignments (turned in after due date/time) will have 10% of points deducted for every 24 hour period after due date/time. The turning in of late work is only excused if *previously* approved by legitimate excuse by Dr. Ruben. TAs are not authorized to excuse late work.

### **Disability Accommodations:**

To request academic accommodations for a disability, *students must provide documentation of a disability prior to receiving accommodations*. Contact the Disability Resource Center for appropriate testing and documentation: [drc.ucsc.edu](http://drc.ucsc.edu), 146 Hahn Student Services, 831-459-2089, [drc@ucsc.edu](mailto:drc@ucsc.edu). Please have Disability Resources contact your instructor by the end of week 1 of class with all necessary information.

### **Academic Honesty & Integrity:**

Students are expected to be familiar with the UCSC Academic Integrity Policy with (see [http://www.ue.ucsc.edu/academic\\_integrity](http://www.ue.ucsc.edu/academic_integrity)). Academic misconduct includes but is not limited to cheating, fabrication, plagiarism, or facilitating academic dishonesty or as further specified in the Student Policies and Regulations Handbook [Section 102.01](#).

In the event a student is found in violation of the UCSC Academic Integrity policy, he or she may face both academic sanctions imposed by the instructor of record and disciplinary sanctions imposed either by the provost of his or her college or the Academic Tribunal convened to hear the case. Violations of the Academic Integrity policy can result in dismissal from the university and a permanent notation on a student's transcript.

*Academic misconduct will NOT be tolerated. The instructor is responsible for determining the academic sanctions to be imposed in the event of misconduct. Academic sanctions may include reduced scores on assignment(s), a reduced grade in the course or failure of the course for all students involved.*

### **Expectations of Students:**

BIOL105 will be an *extremely* fast paced, and intensive course- DO NOT GET BEHIND.

- Students are expected to be on time, prepared, and working. Failure to do so will affect a student's performance in this course.
- Students are expected to know when their exams are and when assignments are due, and understand the penalties of work turned in late and that assignments are not excused or accepted late without approved excuses. Failure to do so will affect a student's performance in this course.
- Students are encouraged to be resourceful, work together and seek out help when they need it- from each other, the teaching assistants or the instructor. Failure to do so will affect a student's performance in this course.

### **TIPS FOR SUCCESS:**

1. *Always* attend lecture.
2. *Always* read the textbook (ahead of lecture).
3. *Always* complete the problem sets and get help from TAs during discussion sections and office hours.
4. Work together.
5. Attend *at least* one discussion section per week.
6. *Do not* get behind.
7. Get help immediately if you are struggling, *do not wait*.

"THERE ARE NO SECRETS TO SUCCESS. IT IS THE RESULT OF PREPARATION, HARD WORK, AND LEARNING FROM FAILURE."

~ GENERAL COLIN POWELL