

GENETICS BIOL 305

Spring 2020

LECTURE: Tuesday and Thursday, 9:25-10:40, RITA 154

INSTRUCTOR: Agnes Ayme-Southgate

Office: Rita Hollings Science Center (RITA) room 225

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Office hours: Monday through Thursday 11-12 am or by appointment

COURSE DESCRIPTION:

The basics of the science of heredity. The course encompasses Mendelian genetics, the molecular basis of inheritance, changes in chromosome number and structure, gene mapping, mutations and population genetics. Population and quantitative genetic approaches are applied to clarify the understanding of evolution

LEARNING OUTCOMES:

- Understand the interpretation of genetic information (genotype) into a phenotype
- Acquire mastery of the genetics concepts governing the transfer and changes of genetic information.
- Become familiar with genetics databases and analysis tools.
- Develop critical and analytical skills through problem solving.

TEXT BOOK

No textbook required. Materials available on OAKS

EXPECTATIONS

Topics will follow the content Modules as posted on OAKS.

A file with class schedule and module assignments is posted individually on OAKS.

You are expected to come prepared to class by reading the assigned chapter BEFORE class time.

I will follow a partial reverse teaching method, *i.e.* I will not teach all the material. We will use about half of each class time for activities and problem solving.

TESTING

1. Quizzes **through OAKS** or in class 30%
I drop the lowest 2 grades.
2. TESTS: 30%
There will be 2 tests during the semester. Make up for missed tests will only be given with an extremely valid excuse. 18% for the highest grade, 12% for the lowest grade. Total for 2 tests 30% of grade. Dates are posted on the accompanying schedule.
3. Class activities/exercises (team-based) 20%
4. Final exam: 20%

SCALE:

92 and above A

90-91.9: A-

87-89.9: B+

83-86.9: B

80-82.9: B-

77-79.9: C+

74-76.9: C

70-73.9: C-

67-69.9: D+

64-66.9: D

60-63.9: D-

Below 60: F

IMPORTANT DATES

- 1/15: last day for Drop/Add
- 2/11: TEST 1
- 3/07: mid term grade
- 3/10: TEST 2
- 3/13: last day for W
- 3/14-3/22 Spring break
- 4/21: last lecture
- 4/25: Final exam 8am-11 am

RESOURCES FOR SUCCESS

It is essential that you stay on top of the course assignments. I will post due dates and reminders, but it is on you to make sure that you don't get behind. The material is quite difficult and will take a lot of effort on your part to master. You should plan to dedicate 1-2 hours/day every day (including weekends).


OAKS


I will be using OAKS to post information, announcements, as well as communicate, share ideas and questions. Make sure to check the site at least once every day. If you are not familiar with OAKS, please let me know.

Contact your instructor

If you do not understand a concept, experiment or how to solve a problem, do not give up. The material builds on itself, *i.e.* if you do not understand something at the beginning, it will haunt you for the rest of the course. The best approach is to reach to your instructor immediately by email (southgatea@cofc.edu). I check my email regularly including on weekend and you can expect a response within 2-3 hours.

COURSE POLICIES

 **Electronic devices:** you will need a working computer. All software needed for the class activities are either available online or downloadable free of charge. We may use one of the department computer rooms for some activities. I will let you know in advance.

 **Attendance policy:** you are expected to come to every class, unless you are sick or in case of emergency. **MISSING 3 CLASSES IN A ROW WILL RESULT IN A "WA" GRADE (WITHDRAWN EXCESSIVE ABSENCE) AT MIDTERM AND/OR FINAL GRADE. A FINAL "WA" GRADE IS CALCULATED AS AN "F" IN YOUR GPA.**

Disability Services

The College will make reasonable accommodations for persons with documented disabilities. Students should apply at the Center for Disability Services / SNAP, located on the first floor of the Lightsey Center, Suite 104. If there is a student in the class who has a documented disability and has been approved to receive accommodations through the Center for Disability Services

/ SNAP, please let me know as soon as possible as I can adjust time allowed on quizzes and tests.

College of Charleston Honor Code and Academic Integrity

Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when identified, are investigated. Each incident will be examined to determine the degree of deception involved. Incidents where the instructor determines the student's actions are related more to a misunderstanding will be handled by the instructor. A written intervention designed to help prevent the student from repeating the error will be given to the student. The intervention, submitted by form and signed both by the instructor and the student, will be forwarded to the Dean of Students and placed in the student's file.

Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive a XF in the course, indicating failure of the course due to academic dishonesty. This grade will appear on the student's transcript for two years after which the student may petition for the X to be expunged. The F is permanent. The student may also be placed on disciplinary probation, suspended (temporary removal) or expelled (permanent removal) from the College by the Honor Board.

Students should be aware that unauthorized collaboration--working together without permission-- is a form of cheating. Unless the instructor specifies that students can work together on an assignment, quiz and/or test, no collaboration during the completion of the assignment is permitted. Other forms of cheating include possessing or using an unauthorized study aid (which could include accessing information via a cell phone or computer), copying from others' exams, fabricating data, and giving unauthorized assistance. Research conducted and/or papers written for other classes cannot be used in whole or in part for any assignment in this class without obtaining prior permission from the instructor.

Students can find the complete Honor Code and all related processes in the Student Handbook at <http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php>