GENETICS 4230L: EVOLUTIONARY BIOLOGY LABORATORY
Spring 2020, 3 credits

Coronavirus Information for Students

Face Coverings: Effective July 15, 2020, the University of Georgia—along with all University System of Georgia (USG) institutions—requires all faculty, staff, students and visitors to wear an appropriate face covering while inside campus facilities/buildings where six feet social distancing may not always be possible. Face covering use is in addition to and is not a substitute for social distancing. Anyone not using a face covering when required will be asked to wear one or must leave the area. Reasonable accommodations may be made for those who are unable to wear a face covering for documented health reasons. Students seeking an accommodation related to face coverings should contact Disability Services at https://drc.uga.edu/. ***Face coverings will be required for all in-person meetings of this class, including outside meetings.***

DawgCheck: Please perform a quick symptom check each weekday on DawgCheck—on the UGA app or website—whether you feel sick or not. It will help health providers monitor the health situation on campus: https://dawgcheck.uga.edu/

What do I do if I have symptoms? Students showing symptoms should self-isolate and schedule an appointment with the University Health Center by calling 706-542-1162 (Monday-Friday, 8 a.m.-5 p.m.). Please DO NOT walk-in. For emergencies and after-hours care, see https://www.uhs.uga.edu/info/emergencies.

What do I do if I am notified that I have been exposed? Students who learn they have been directly exposed to COVID-19 but are not showing symptoms should self-quarantine for 14 days consistent with Department of Public Health (DPH) and Centers for Disease Control and Prevention (CDC) guidelines. Please correspond with your instructor via email, with a cc: to Student Care & Outreach at sco@uga.edu, to coordinate continuing your coursework while self-quarantined. If you develop symptoms, you should contact the University Health Center to make an appointment to be tested. You should continue to monitor your symptoms daily on DawgCheck.

How do I get a test? Students who are demonstrating symptoms of COVID-19 should call the University Health Center. UHC is offering testing by appointment for students; appointments may be booked by calling 706-542-1162. UGA will also be recruiting asymptomatic students to participate in surveillance tests. Students living in residence halls, Greek housing and off-campus apartment complexes are encouraged to participate.

What do I do if I test positive? Any student with a positive COVID-19 test is **required** to report the test in DawgCheck and should self-isolate immediately. Students should not attend classes in-person until the isolation period is completed. Once you report the positive test through DawgCheck, UGA Student Care and Outreach will follow up with you.

Class meetings: Tuesdays and Thursdays, 9 am – 12:00 pm

Class locations: Most classes will be held via synchronous zoom; ten classes will be held at outdoor locations on campus (e.g., the lawn in front of Davison Life Sciences, the Botany Greenhouses off Riverbend Road). Each week, class locations will be announced via eLC by Monday afternoon.

Instructors and their contact information:

Dr. Andrea Sweigart
Email: sweigart@uga.edu, Phone: 706-542-7001, Office: Life Sciences C218
Office hours: By appointment (please email)
Dr. Jonathan Eggenschwiler
Email: jeggensc@uga.edu, Phone: 706-542-2813, Office: Coverdell, Room 245B
Office hours: By appointment (please email)
Mr. Shaun McCann, Lab manager
Email: shaugnessy.mccann25@uga.edu
Mr. Paul Ginsberg, Teaching assistant
Email: paul.ginsberg25@uga.edu

Course Description: In this class we will explore how evolution operates (via the processes of mutation, selection, gene flow, and drift) and the consequences of evolution in action (via the study of adaptation and speciation). We will emphasize experimental design and analysis to expose you to a variety of approaches and questions in modern evolutionary genetics. Throughout the course, we will also emphasize the importance of written and oral science communication.

Attendance policy: Students are encouraged to attend class either in person or by zoom as is consistent with their comfort level. If must miss class, please contact an instructor as far in advance as possible, but at least 24 hours, if you know you will miss class. For any absence, excused or unexcused, you must talk with the instructor about a plan for making up work that you missed, as well as coordinate with your lab partner to exchange data.

Prerequisites: You should have already taken GENE 3000 (Intro to Evolution); this course may also be taken as corequisite with instructor permission. You will also need to have a firm grasp of Mendelian genetics and the basics of macromolecular structure and biochemistry involved in genetics. Basic algebra and statistics will be required.

Textbook: Lab handouts and papers for discussion will be distributed via eLC. There is no required textbook for this course; however, we suggest you keep an evolutionary biology textbook handy as a reference.

Grading: your overall grade in this class will be based on the following distribution:

> *Participation,* 5 points per class. These are 'good citizen' points. For any absence, excused or unexcused, you must talk with the instructor about a plan for making up work that you missed, as well as coordinate with your lab partner to exchange data.

Quizzes, 10 points each, to be completed at the beginning of some classes, and generally unannounced. Material will be based on reading necessary to participate in lab that day.

Short Assignments, 20-50 points each. These assignments include short lab write-ups, worksheets to reinforce concepts from scientific papers, and activities to improve your scientific writing.

Lab reports, rough drafts: 30 points each, final drafts: 100 points each. See the description below for details. A rubric will be handed out and discussed in class.

Formal presentations, 100 points each. A rubric will be handed out and discussed in class.

The final number of points has not yet been determined, but you can expect around 800-900 points total for the course. Late assignments will be docked 10% per day unless a prior arrangement has been made with the instructor. Final grades will be decided as follows: an A is 92.5% or above, A- is 90-92.49, B+ is 87.5-89.99, B is 82.5-87.49, B- is 80-82.49, and so on. If necessary, final grades will be curved to class advantage. No makeup points will be given; if you have legitimate excused absences with documentation, your grade will be based on the remaining scores.

Religious Holidays: If you plan to miss a class because of a religious holiday, you must talk to one of the instructors at least fourteen days prior to the class to make arrangements to make-up missed work.

Honor Code: All students agree to abide by the UGA Student Honor Code: "I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others." All suspected incidences of academic dishonesty, as outlined under prohibited conduct in the UGA academic honesty policy (http://www.uga.edu/ovpi/honesty/sect05.htm), will be treated following UGA guidelines (http://www.uga.edu/ovpi/honesty/culture_honesty.htm). You will be working closely with partners in this lab, but your work must be your own, reflect your own thought, show your own math and reasoning, and so forth.

Disclaimer: The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

GENE 4230L: Tentative course schedule. This is subject to change.

Class	Date	Topic	Location
1	8/20	Intro to course, Human Pop Gen	zoom
2	8/25	Human Pop Gen	outside
3	8/27	Human Pop Gen	zoom
4	9/1	Human Pop Gen - data analysis I	zoom
5	9/3	Human Pop Gen - data analysis II	zoom
6	9/8	Human Pop Gen	zoom
7	9/10	Paper discussion, writing	outside
8	9/15	Phylogenetics of HIV	zoom
9	9/17	Phylogenetics of HIV	zoom
10	9/22	TBA	zoom
11	9/24	TBA	outside
12	9/29	Neurospora Speciation	zoom
13	10/1	Neurospora Speciation	zoom
14	10/6	Paper discussion, writing	outside
15	10/8	Neurospora Speciation	zoom
16	10/13	Mimulus Quant Gen	zoom
17	10/15	Mimulus Quant Gen	outside
18	10/20	Neurospora paper peer review	zoom
19	10/22	Mimulus Quant Gen	greenhouse
20	10/27	Mimulus Quant Gen	greenhouse
21	10/29	Mimulus Quant Gen	zoom
22	11/3	Mimulus Quant Gen	zoom
23	11/5	Mimulus Quant Gen	outside
24	11/10	Mimulus Quant Gen	zoom
25	11/12	Mimulus Quant Gen	zoom
26	11/17	Mimulus Quant Gen	greenhouse
27	11/19	Mimulus Quant Gen	greenhouse
28	11/24	Mimulus paper peer review	zoom
29	12/1	Mimulus Quant Gen	zoom
30	12/3	student presentations	zoom