

Principles of Evolution Laboratory
BIOL 4261-501
Fall 2021

Teaching Assistant: Divya Chakote

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Office Hours: Wednesday 11:00 a.m.–2:00 p.m. or by appointment

Lab Meeting Location: GAB 330D

Lab Meeting Time: Tuesdays from 5:00 p.m.–7:50 p.m.

Schedule: Following is a *tentative* schedule for the lab. This may be subject to change depending on availability of materials or other conditions. Labs will use the SimBio educational software, which will be available on the computer labs in GAB 330D. All labs need to be attended in person.

Indicated for each week are the date, subject we will cover, and points for the lab.

Date	Subject	Points
August 24	No Lab	0
August 31	Introductions / Evolutionary Evidence (Workbook Lab)	20
September 7	Finches & Evolution (Workbook Lab: natural selection)	20
September 14	Domestication of Dogs (Workbook Lab: phylogenetic reconstruction)	20
September 21	Mutation and Genetic Variation (Article Discussion: mutation, genetic variation, adaptation)	20
September 28	Sickle-Cell Alleles (Workbook Lab: HWE, genetic drift)	20

October 5	Genetic Drift and Bottlenecked Ferrets (Tutorial Lab: genetic drift)	20
October 12	Mendelian Pigs (Tutorial Lab: population genetics)	20
October 19	Darwinian Snails (Tutorial Lab: selection and predation)	20
October 26	How the Guppy got its spots (Workbook Lab: sexual selection)	20
November 2	Social Behavior (Article Discussion: evolution of social behavior)	20
November 9	Ornamentation in Birds (Article Discussion: life history, sexual selection)	20
November 16	Inner Fish (Video Discussion: fossil evidence)	20
November 16	Species Concepts in Animals (Article Discussion: species concepts)	20
November 23	HIV Clock (Workbook Lab: molecular clocks, neutral evolution)	20
Nov. 30	How Diseases Spread (Tutorial Lab: population genetics, coevolution, disease evolution)	20
	TOTAL	300

Canvas: Information pertaining to class will be posted on Canvas website at <https://unt.instructure.com>. This may include updates to labs, readings for discussion labs, supplemental readings or announcements. Your grades will be posted as well so you can monitor your progress over the semester. It is wise to make a habit of checking Canvas at least once a day so you do not miss important announcements.

Grades: 20 points per lab session for a total of 300 points. The goal of this lab is to expand and develop the concepts introduced in lecture. Each lab session will be worth 20 points and points will be awarded based on in-class participation and completion of lab assignments. Some of the simulation modules come with associated workbooks (i.e., SimBio “Workbook Lab”) that will be filled out during the lab session and turned in for a grade at the end of class. Other simulation labs will have questions that are answered in the context of the lab, and responses will be graded by the SimBio system automatically (i.e., SimBio “Tutorial Labs”). Labs will be graded primarily on completeness (i.e., did you fulfill the requirements of the lab) and on the accuracy of the answers. Ask questions if you are not clear on lab concepts.

In addition to the simulated labs, there will be several in-class discussions that will take place, which will have graded discussion questions. These will be based on a film (i.e., shown during lab), article read during lab, or contemporary issue brought up by your teaching assistant. Discussion labs are a chance for you to develop your understanding of evolution through conversation and debate with your peers and the teaching assistant. If you are hesitant about voicing your opinion in class, be assured that your opinion and level of knowledge will be respected in this class (see General Lab Rules). **However, discussion labs only work if students participate. If you choose not to participate in discussions you will lose points on discussion days.**

Grade Scale

Points	Grade
270 - 300	A
240 - 269	B
210 – 239	C
180 - 209	D
< 179	F

Attendance: Attending class and being on time are your responsibilities. If you miss a class you will get a zero for the day. Reasonable accommodation may be offered in actual cases of adversity, but you will have to prove your case to my satisfaction. Extreme tardiness is disruptive to the class and I will deduct half (10) of the points for the day if you are late by 20 minutes or more. Try to get to class on time.

General Lab Rules: All labs will take place in GAB 330D, which is a computer lab on the third floor of the General Academic Building. Your conduct in this class should conform to the UNT Code of Student Conduct (www.dos.unt.edu/conduct). That being said, we want to encourage a dialogue in this class and nothing stifles dialogue as quickly as disrespect for someone’s opinion or level of knowledge. I expect you to **treat your fellow classmates as you want to be treated**

while expressing your opinion. I want to encourage healthy discussion and even dissent, but disrespect for your fellow students in class discussions is unacceptable.

Disabilities Accommodation: UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the Office of Disability Accommodation website at <http://www.unt.edu/oda>. You may also contact them by phone at 940.565.4323.

Diversity, Equity, and Inclusion:

In my classroom, regardless of race, gender, age, sexual identity, socioeconomic status, disability status, marital status, religion, and nationality all students are welcome. Everyone belongs here and your contributions are valuable. Mutual respect for each other is the key to the successful completion of the class.