Biology 1B, Section 124 Discussion and Lab, Spring XXXX

GSI contact info:

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Office hours: Mondays at 10am or by appointment Office: VLSB XXXX (office hours will be held in 0000)

Meeting times:

Lectures: MWF at 8AM in 2050 and 2040 VLSB Labs: Section 124, Wed. at 2-5PM in 2007 VLSB Discussion: Section 124, Fri. at 1PM in 2030 VLSB

Required text:

Biology 1B lab manual, 20th edition by Mike Moser

My teaching philosophy:

I am here at Berkeley because I love biology. I want to do all I can to make the material covered in this course come alive for you all so that you might love it the way that I do. I will do my best to put the material for this course in a more global context so that you can understand why learning about ecology, evolution and plant morphology is important. I like having an interactive classroom, so do not hesitate to ask me questions. Be bold in lab and discussion and answer questions that I pose to you. The only stupid question is the one that is not asked. I would like you all to give me feedback throughout the semester so that I can best help you succeed in this course.

Attendance:

I expect everyone to attend all lectures, labs and discussion sections for this course and to complete the reading in a timely fashion. *Please review your lecture notes before coming to discussion and read the upcoming lab before coming to the lab*. If you miss a lecture or discussion section, you are responsible for obtaining the notes and handouts from a classmate. Please be punctual to discussion and lab sections.

Do not miss lab unless you absolutely have to! Unless you have a medical or family emergency, you must notify me *in advance* if you plan on missing lab. Attending and participating in the lab exercises is how you learn the material. If you do miss lab, assignments must be made up by the end of the week. The GSI of the lab section you attend must sign your lab to acknowledge that you attended and participated. *You must attend a lab section in order to receive credit for the lab*. If you attend another lab section, you are responsible for coordinating with your group to complete the assignment for that week.

Academic honesty:

I encourage you all to consult outside resources in order to complete your assignments. If you choose to use an outside source, *you must cite the source*. Outside sources include websites, pictures off the internet, and other textbooks. Failure to properly cite outside sources will result in a zero on the assignment and I am required to report you to Mike Moser. So...when in doubt, cite, cite, cite!

Group work:

You will be assigned to a group of 4-5 students early in the semester. Unless otherwise specified, each group will turn in one assignment per lab. I understand that not everyone can contribute equally to every assignment; although I expect each group member to make some contribution to each lab. For each write-up note the percent contribution scores that accurately reflect the amount of work you think you did for a given lab. This way you can track each group member's overall contribution to assignments over the course of the semester. Everyone in the group is responsible for the work that is turned in regardless of his/her level of contribution. This group contract must be signed and included on the front of all lab reports. Reports without signatures from everyone will not be accepted.

For essays and report write-ups, you must turn in both a rough draft and a final draft of the paper *in hard copy*. One group member, who was not one of the primary authors, must edit and proof read the rough draft. Remember that everyone in the group receives the same grade, so make sure you agree with the content of every lab that is turned in with your name attached. If you are having trouble with a member of your group, please note it on your contracts and let me know *immediately* so that I can intervene.

Quizzes:

The quizzes are designed to help you review the material from lecture well before the midterms and to understand the labs. Any material from the lectures, lab, or discussion section could be on the quizzes. Additionally, I may, on occasion, quiz you to make sure you have read and understood the lab before coming to section. If you have any questions about lecture or lab, let me know so I can help you and so you will perform well on these quizzes. Please use these quizzes as a learning tool. They aren't meant to stump you!

I will be giving both announced and unannounced quizzes throughout the semester. These quizzes will be administered during the first 10 minutes of lab or discussion. Latecomers will not be given a full 10 minutes to complete the quizzes. *There will be no make-up quizzes*.

Grading:

Of the 700 points you could potentially score in this course, 250 of those points will come from lab. Of the lab points, the breakdown will be as follows:

- 60 points from ecology labs
- 60 points from the plant morphology labs
- 60 points from the evolution labs
- 10 points from the library exercise
- 30 points weekly quizzes
- 30 points enrichment assignment
- 250 lab points

I will weight each of the labs and each of the quizzes more or less equally.

All GSIs for Bio 1B are required to maintain an 85% mean for their section, so if there are differences in grading style among GSIs, remember that we are all "standardized" so you won't be disadvantaged by having a "hard grader."

I generally return extensive comments with your lab report. Please use those comments when rewriting reports or studying to improve your understanding. If you are unclear about what I mean, please let me know!

Contacting me, emailing, and exchanging papers:

I encourage everyone to come speak with me to discuss any questions, problems or concerns you might have. If your questions are not addressed during class time, please visit me during my office hours. You may also visit a different GSI during his or her office hours if that would make your more comfortable. The office hour schedules will be posted soon. You may also contact me via email to ask questions or to schedule an appointment if you have a conflict during my office hours. I may anonymously forward my responses to your email questions to the entire class if they are applicable to everyone. I am usually difficult to reach by phone; however, as a last resort, you may call me in my lab in VLSB.

It is imperative that you check your email regularly and let me know if you aren't receiving the emails I am sending out. *I will use email as my primary form of communication*. Feel free to email me and/or the entire class with questions on the material. Although I do not check my email regularly over the weekend, I make sure to check it at least once a day during the week.

If you need to give me any papers outside of class time, you may place them in the locked slot box labeled 124 in room 2013. I will place any additional handouts in the open slot box labeled 124 in room 2013. I will only make enough copies for students in our section, so please only take one copy.

Enrichment Project

Due date: May 9 th in discussion section

For your enrichment project, I would like you to read and write about biology. I have selected chapters from four of my favorite biology books for you all to read. Although each book uses biological terms that you have encountered in this course, none of them is as technical as the textbook. In fact, most of the readings I have selected are meant for everyday people to read and they are quite funny.

Each book I have chosen addresses concepts that we will cover in this course. I would like you to select and read all the suggested sections from ONE of the FOUR books listed below. Once you have read the selection, I would like you to reflect on what you have learned in a BRIEFessay (maximum 3 pages double spaced, 12 font). In that essay, I would like you to explain how the reading either exemplifies, supports, or refutes one of the major concepts we have talked about in lecture, lab or discussion. You must evaluate the author's argument using information from lecture and lab. The best essays will relate the reading *in its entirety* to one or two major concepts we have covered in the course. Summaries of either the book or the class material are insufficient. I am looking for a synthesis and analysis of the two. Go out of your way to integrate different ideas from the whole book together. These essays will be graded on:

- 1. How well you demonstrate an understanding of the text.
- 2. How well you integrate *all* parts of the reading assignment. In other words, I have chosen particular chapters for particular reasons and I want you to show me that you have read all the assigned chapters and recognized the dominant themes found therein.
- 3. How well you link the enrichment readings to the major concepts we have covered in the course. These concepts may include but are not limited to: theories of evolution, sexual selection, biodiversity, population dynamics, symbiosis, competition, the interaction of climate and biomes, microevolution, and natural history. It is imperative that you connect the reading to what we've learned in class and discuss whether the reading supports what you've learned, deepens your understanding of what you've learned, provides important examples for what you've learned, etc.
- 4. How well written the essay is. I am looking for essays with a clear argument, main point, or thesis. I am reading 30 of these essays, so if your writing is unclear or if your essay is poorly

structured, I'm not going to spend a lot of time trying to figure out what you mean. Get a friend or classmate to proofread your essay before handing it in.

I will give each group a binder of all the readings for this project. You are responsible for returning the readings to me in discussion on May 9 th.

Please choose one of the following 4 reading assignments for your enrichment assignment. I have made selections that should take you about the same amount of time to read (shorter assignments correspond to more difficult texts), so choose a book that interests you, not the one with the fewest pages assigned. I recommend that you look at some reviews online to get a better sense of the topics covered in the books. If you're stumped on how to start writing your essay, come see me WELL IN ADVANCE so we can talk about ideas.

Gould, Stephen Jay. 1980. The Panda's Thumb: More Reflections on Natural History. Penguin Books, England.

Chapter 1—"The Panda's Thumb" pp. 19-25

Chapter 8—"Caring Groups and Selfish Genes" pp. 72-78

Chapter 9—"A Biological Homage to Mickey Mouse" pp. 81-91

Chapter 10—"Piltdown Revisited" pp. 92-104

Chapter 14—"Women's Brains" pp. 127-132

Chapter 17—"The Episodic Nature of Evolutionary Change" pp. 149-154

Chapter 20—"A Quahog is a Quahog" pp. 170-177

Chapter 21—"An Early Start" pp. 181-188

Chapter 27—"Nature's Odd Couples" pp. 231-239

Chapter 28—"Sticking up for Marsupials" pp. 240-245

Chapter 29—"Our Allotted Lifetimes" pp. 249-253

Chapter 30 – "Natural Attraction: Bacteria, the Birds, and the Bees" pp. 254-261

Chapter 31—"Times' Vastness" pp. 262

Dawkins, Richard. 1976. The Selfish Gene. Oxford University Press, Oxford, England.

Chapter 2—"The Replicators" pp. 12-20

Chapter 3—"Immortal Coils" pp. 21-45

Chapter 4—"The Gene Machine" pp. 46-65

Chapter 6—"Family Planning" pp. 109-122

Chapter 7—"Battle of the Generations" pp. 123-139

Chapter 13—"The Long Reach of the Gene" pp. 234-266

Forsyth, Adrian and Ken Miyata. 1995. Tropical Nature: Life and Death in the Rain Forests of Central and South America. Simon and Schuster. New York, New York.

Introduction: A Temperate View of Tropical Life pp. 1-6

Chapter 1—"In the Realm of the Tropics" pp. 7-16

Chapter 2—"Fertility" pp. 17-30

Chapter 3—"Canyons of Light" pp. 31-40

Chapter 6—"Listen to the Flowers" pp. 65-76

Chapter 9—"Creeping Socialists" pp. 103-114

Chapter 11—"Artful Guises" pp. 125-138

Chapter 13—"Jerry's Maggot" pp. 153-168

Chapter 15—"Night Walks" pp. 185-196

Chapter 16—"The Eternal Tropics" pp. 197-206

Chapter 17—" Paradise Lost?" pp. 207-218

Judson, Olivia. 2002. Dr. Tatiana's Sex Advice to All Creation. Henry Holt and Company, New York.

Part I: Let's Slip the Whores of War pp. 7-9

Chapter 1—"A Sketch of the Battle Field" pp. 9-20

Chapter 2—"The Expense is Damnable" pp. 21-39

Part II: The Evolution of Depravity pp. 93-94

Chapter 6—"How to Make Love to a Cannibal" pp. 95-104

Chapter 8—"Hell Hath No Fury" pp. 122-131

Chapter 10—"Till Death Do Us Part" pp. 152-156

Part III: Are Men Necessary? Usually, but Not Always pp. 167-168

Chapter 11—"The Fornications of Kings" pp. 169-186

Chapter 12—"Eve's Testicle" pp. 187-211

Chapter 13—"Wholly Virgin" pp. 212-232