

Course Syllabus

MATH 1180, Section 001, Spring 2020

Statistics for Biologists

Instructor: Loren Santana
Pronouns: She/her/hers
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Lecture Hours:
MWF 9:40 AM - 10:30 AM, CSC 25

Office Hours: Mondays and Wednesdays, 10:30 AM - 11:30 AM or by appointment
Location: JWB 121

Lab Assistant: Samantha Hill
Pronouns: She/her/hers
E-mail: hill@math.utah.edu

Email Communication: I am happy to answer any questions through email. However, I do not check my email on the weekends and the latest I check my email during the week is 5:30 PM. Keep this in mind, specially if emailing about homework.

Course: The goal is to learn how to analyze autonomous differential equations (especially in the phase plane), some basic probability theory, Markov processes, the behavior of different distributions, and what statistical reasoning like hypothesis testing tells us about data sets.

Text: *Modeling the Dynamics of Life: Calculus and Probability for Life Scientists, 3rd edition* by Frederick R. Adler.

Technology: Calculators that do not connect to the internet may be used during quizzes and exams. If using a computer in class, you must use it in tablet form. No cellphones, smartwatches, etc. may be used during quizzes or exams.

Prerequisites: At least a “C” or better in Math 1170 or some equivalent coursework.

Canvas: Canvas will be used for posting course announcements, homework assignments, grades, files and any relevant supplementary material. You are also welcome to make use of the Canvas discussion board to discuss course problems or topics. You can access the Canvas page through CIS or by logging in at utah.instructure.com. Students should check the Canvas page regularly for course information and resources. Email notifications and correspondence will be sent to the student’s UMail address ([u-number]@utah.edu); this email account must be checked regularly.

Homework: Weekly homework will be assigned **but not collected**. It is in your best interest to work on the problems as quizzes will rely on it. The assignments will be posted on Canvas and will cover material up to and including the previous Friday.

Labs: The goal of the laboratory sections will be to make students comfortable with computers as a useful tool for the application of statistics to biology. The pace and content of laboratory sections will be determined by the laboratory coordinator and course instructor.

Quizzes: Weekly quizzes will be given at the end of class on Wednesdays. The quiz will take 15-20 minutes and cover the material presented the previous week in class. You must be in attendance to take the quiz, however the two lowest quiz scores will be dropped. There are no “make-up” quizzes. Students who miss a quiz will receive a “0” on the missed quiz. The best way to study for quizzes is to actively work on homework in a timely manner. There are no quizzes on exam weeks.

Exams: You will have two midterm exams (50 minutes each). The dates for these exams are fixed (2/21 and 4/3), and will be during normal class time in our normal classroom. There are no “make-up” exams. Students who miss an exam will receive a “0” on the missed exam. Absence from an exam will be excused only if you can provide verifiable and convincing evidence that you have a significant illness or serious family crisis that will prevent you from attending. I will verify all documents. Except under extremely unusual circumstances, you must inform me in advance of the missed test. If a make-up exam is given, it will differ from the one given during the regular allotted time.

Final Exam: The comprehensive final exam is on **Friday, April 24, 2020 from 8:00 AM - 10:00 AM** in our classroom, CSC 25. If this time conflicts with another final exam, you need to notify me at least two weeks before the final.

Examples of excuses that will not be sufficient to warrant a make-up exam:

- vacation
- oversleeping
- forgetting the exam was scheduled, not knowing when exam is scheduled
- did not study enough
- partying too hard, drinking too much
- stuck in traffic

This list is not exhaustive.

Grading Policy: Your grade will be based on:

Labs	15%
Quizzes	15%
Exam 1	20%
Exam 2	20%
Final Exam	30%

The two lowest quiz scores will be dropped. The instructor retains the right to modify this grading scheme during the course of the semester; students will, of course, be notified of any adjustments.

Grades (Evaluation and criteria): Final letter grades will be determined by overall percentage as follows:

A	[93,100)	B-	[80,83)	D+	[67,69)
A-	[90,93)	C+	[77,80)	D	[63,67)
B+	[87,90)	C	[73,77)	D-	[60,63)
B	[83,87)	C-	[70,73)	E	< 60

Do not expect extra credit, curving, or rounding to boost your grade. At the end of each semester, some students email asking for an increase in grades. Here are the most common reasons, which never lead to a grade increase:

- I need a certain grade for my scholarship, to get into medical school, etc.
- I need a certain grade to get into a class or major.
- I need a certain GPA in order to remain a student.
- This is the last time I can take this course.
- I think I deserve a higher grade because I really know the material, I'm just bad at taking exams.
- I'm a freshman and didn't know what to expect.
- I was really busy this semester but if I can do some extra credit, I can show you I know the material.

This list is not exhaustive.

If you need help, please ask early on. Don't wait till just before (or worse, after) the final to ask for help. I am happy to talk and help as much as possible **during** the semester. At the end of the semester, there's really nothing I can do.

Some important dates for this class:

Monday, January 6	First day of classes
Friday, January 17	Last day to add, drop (delete), elect CR/NC classes
Monday, January 20	Martin Luther King Jr. Day (no class)
Monday, February 17	Presidents' Day (no class)
Friday, February 21	First midterm exam
Friday, March 6	Last day to withdraw from classes
March 8 - 15	Spring Break (no class)
Friday, April 3	Second midterm exam
Tuesday, April 21	Last day of classes
Friday, April 24	Final exam: 8:00 AM - 10:00 AM

ADA Statement: The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability and Access, 200 S. Central Campus Dr., Rm. 162. CDA will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to the Center for Disability and Access.

If you have an accommodations form, please submit this to me no later than January 22nd. All students taking exams with accommodations will do so at the CDA testing center.

Safety Statement: The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu.

Veterans' Center: If you are a student veteran, the U of Utah has a Veterans Support Center located in Room 161 in the Olpin Union Building. Hours: M-F 8-5pm. Please visit their website for more information about what support they offer, a list of ongoing events and links to outside resources: <http://veteranscenter.utah.edu/>. Please also let me know if you need any additional support in this class for any reason.

Tutoring: The Rushing Math Center offers free drop-in tutoring, a computer lab, and study areas for undergraduates. The Rushing Student Center is adjacent to the LCB and JWB. The hours for the summer semester are: 8 am – 8 pm Monday to Thursday and 8 am – 6 pm on Friday. The tutoring center will open the second week of classes.

Nondiscrimination & Accessibility Statement: The University of Utah does not discriminate on the basis of race, color, religion, national origin, sex, age, status as a disabled individual, sexual orientation, gender identity/expression, genetic information or protected veteran's status, in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. Additionally, the University endeavors to provide reasonable accommodations and to ensure equal access to qualified persons with disabilities. Inquiries concerning perceived discrimination or requests for disability accommodations may be referred to the University's Title IX/ADA/Section 504 Coordinator at the Office of Equal Opportunity and Affirmative Action, 801-581-8365

Student Wellness: Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness at www.wellness.utah.edu

Student responsibilities: All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, indicated in the Student Handbook. You have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies prescribed conduct (Article XI) that involves cheating on tests, collusion, fraud, theft, etc. Students should read the Code carefully and understand you are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee. <http://regulations.utah.edu/academics/6-400.php>

Classroom Social Equity: I strive to be kind, ethical, fair, inclusive and respectful in my classroom and expect students to behave likewise. In this regard, I have these requests of you, as my students:

- Please inform me of whichever pronouns you prefer me to use for you. I will put great effort into honoring your request and ask that you correct me if I happen to make a mistake.
- Please tell me, discreetly, if you have any sort of anxiety disorder, TBI, PTSD, or any other challenge that would cause psychological harm to you by me calling on you in class. I want students to feel stretched and challenged during class, while working on problems as a large group, but I do not want to cause harm to any human being. Please let me know if that is the case for you and I will confidentially accommodate your request.
- If your preferred name is different than your legal first name (the preferred name you chose does indeed show up in CIS on my roll sheet, but not yet in Canvas), please log into Canvas and go to Account (on far left), then Settings and change your Display Name to be the name you prefer to be addressed by. This will help me to address you correctly.

Class policies:

- I reserve the right to modify the class structure and syllabus at any time but I will notify you if and when any changes are made
- Please silence your technology at the start of class. If you are repeatedly disrupting the learning environment, you will be asked to leave.
- If an emergency arises that prevents you from making it to an exam or turning in a homework it is your responsibility to communicate that information to me as soon as possible. I will do my best to accommodate any situation that comes up. In general, I allow exams to be taken early, but not late.
- Cheating is student misconduct and will be dealt with seriously. If you cheat on any quiz, lab, or exam, I will automatically give you a zero for that grade. Depending on the severity of the cheating, I may decide to fail you from the class. Please note that the use (or even just pulling it out of your pocket) of a cell phone or any other electronic device during any in-class exam is considered cheating and cause for receiving an automatic zero.
- Please refrain from using laptops during class. If you must be on a laptop, please sit in the back of the classroom.
- Regrade requests can only be made the class period after the homework/quiz/exam was returned and in writing with an explanation why more credit is due.