

Syllabus

STATS 8: Introduction to Biological Statistics

Jose Toledo Luna

Introductory statistical techniques used to collect and analyze experimental and observational data from health sciences and biology. Includes exploration of data, probability and sampling distributions, basic statistical inference for means and proportions, linear regression, and analysis of variance.

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! Syllabus Changes

This syllabus is subject to change at any time.

Lecture

Tuesday/Thursday: 2:00pm–3:20pm @ HIB 100

Discussions

TA	Email	Discussions
James Albert Nguyen	janguye5@uci.edu	A1: Friday 9:00am–9:50am A2: Friday 10:00am–10:50am (ICS 180)
Hanpu Shen	hanpus1@uci.edu	A3: Friday 11:00am–11:50am A4: Friday 12:00pm–12:50pm (ICS 180)

Office Hours

Tuesday/Thursday: 10:00am–11:00am @ DBH-2054

Please stop by office hours and introduce yourself! Office hours are useful for one-on-one help on assignments, discussion of topics discussed in the reading, or broader questions about statistics and data science

Communication Expectations

Email: jtoledol@uci.edu

Email the professor if the situation **only applies to you** and is a personal manner. Otherwise, create a discussion/question using [campuswire](#) so the TA, myself and other students can assist you.

If you email me, please note a response can take up to 24 hours on work days (Monday-Friday).

All lecture/discussion announcements will be made through CANVAS.

Student Learning Outcomes

By the end of the course, students should be able to:

- Analyze and present data.
- Design observational and experimental studies.
- Use probability to model and predict random events.
- Use statistical inference to test hypotheses.
- Estimate population parameters.
- Draw conclusions in context.
- Understand the methodology, results, and issues of statistical studies presented in other courses or in the news.

How to Succeed in the Course

- Come to class and discussion prepared and on time.
- Ask questions when help is needed.
- Attend office hours.
- Actively participate in class discussions.
- Work through quiz material carefully.
- Focus on mastering course material in preparation for the cumulative final exam.

Required Materials

- *Openintro: Introductory Statistics for the Life and Biomedical Sciences*, 1st Edition, by Julie Vu and David Harrington.

Course Technology Requirements

- The course uses the free statistical software R.
- R can be installed on PC and Mac computers.
- Instruction on using R will be provided in class and/or discussion sections.
- R is also available in the ICS computer labs.
- An ICS account is required to use the computer labs.
- ICS account information: http://www.ics.uci.edu/~lab/students/acct_activate.php

Late and Incomplete Assignments

! Important

There are no extensions for late work.

Academic Dishonesty

- Students are expected to pursue their studies with honesty and integrity.
- Cheating and plagiarism are prohibited.
- Plagiarism includes:
 - Submitting work completed by another person.
 - Failing to give credit for another person's ideas, statements, facts, or conclusions.
 - Failing to use quotation marks for directly quoted material.
 - Closely or extensively paraphrasing another person's writing without proper attribution.
 - Submitting another person's artistic work as one's own.
 - Submitting purchased papers as one's own work.
- AI-generated content should not replace students' original thoughts and viewpoints.
- Students who use AI tools should:
 - Ensure the generated content accurately reflects their own ideas and thoughts.
 - Give appropriate credit to the AI tools used.

Grading Methods

Assign- ment	Description	Points
Home- work	Helps connect course concepts and develop a deeper understanding of the overall material.	5 total: 10 points each (<i>50 points</i>)
Course Quizzes	Assigned approximately every other week. Serve as checkpoints for progress and preparation for the cumulative final exam.	4 total: 20 points each (<i>80 points</i>)
Lab Assign- ments	Provide hands-on practice applying statistical concepts through coding in R.	4 total: 20 points each (<i>80 points</i>)
Midterm	Assesses students' understanding and application of key concepts covered in the first half of the course.	<i>50 points</i>

Assign- ment	Description	Points
Final Exam	Taken in class during finals week; bring a valid ID, calculator, and one cheatsheet (front/back)	<i>75 points</i>

Grade Scale

Note

This class is points based, there are no weights.

Your grade: (total points earned)/335

Grade	Percentage
A+	97–100
A	93–96.9
A-	90–92.9
B+	87–89.9
B	83–86.9
B-	80–82.9
C+	77–79.9
C	73–76.9
C-	70–72.9
D+	67–69.9
D	63–66.9
D-	60–62.9
F	Below 60

Misc. Syllabus Requirements

Student Resources

- UC Policy on Sexual Violence and Sexual Harassment
- UCI Library
- UCI Center for Excellence in Writing and Communication
- The Learning & Academic Resource Center (LARC)
- UC Irvine Online Learning Research Center
- UCI Student Portal
- UCI Disability Service Center (DSC)
- Office of Information Technology (OIT)

- UCI Wellness, Health, and Counseling
- UCI Office of Academic Integrity & Student Conduct
- UCI Counseling Center
- Student Affairs

Basic Needs Security

- Students experiencing food or housing insecurity are encouraged to contact the Dean of Students.
- Dean of Students phone: 949-824-5181
- Additional resources include:
 - Student Outreach and Retention Center (SOAR)
 - UCI Basic Needs Center
 - * FRESH Basic Needs Hub
 - * 4079 Mesa Rd, Lot 5 trailers
 - * Open Monday–Thursday, 11:00 AM–5:00 PM

Sexual Violence and Sexual Harassment

- Title IX prohibits gender discrimination, including:
 - Sexual harassment
 - Domestic violence
 - Dating violence
 - Sexual assault
 - Stalking
- Confidential support is available through Campus Advocacy Resources & Education (CARE).
- CARE phone: 949-824-7273
- CARE email: care@uci.edu
- Incidents may also be reported through the Office of Equal Opportunity and Diversity (OEOD).
- Local and national sexual violence resources are available when campus is closed.
- Faculty and TAs are required to notify the Title IX Office if they become aware of sexual violence or sexual harassment involving a student.

Course Policies

Emergency or Instructional Disruption

- Students should review available campus resources for emergency preparation and instructional disruptions.

- Resources include:
 - Zot Alerts Emergency Alert System
 - Common Tech Troubles – Tips & Tricks
 - Pedagogical Continuity

Inclusive Excellence

- UCI is committed to diversity, equity, and inclusion.
- Students from all backgrounds are encouraged to contribute their perspectives and experiences.
- Students who require accommodations or have concerns about participation should speak with the instructor early in the quarter.
- Additional resources include:
 - Diversity Resources
 - Disability Services Center
 - LGBT Resource Center
 - Undocumented Student Support
 - Counseling Center
 - Campus Social Worker
 - Transfer Student Center

Diversity Statement

- UCI does not discriminate on the basis of:
 - Race
 - Color
 - National origin
 - Religion
 - Sex
 - Gender identity
 - Pregnancy
 - Physical or mental disability
 - Medical condition
 - Ancestry
 - Marital status
 - Age
 - Sexual orientation
 - Citizenship
 - Service in the uniformed services
- The university also prohibits sexual harassment.

- These policies apply to admission, access, and treatment in university programs and activities.

Disability and Accessibility Accommodations

- UCI is committed to providing an accessible learning environment.
- Students who require accommodations should contact the Disability Services Center (DSC).
- DSC-approved accommodations will be provided to students who present a Faculty Notification Letter.

Class Withdrawal Policy

- Students are responsible for officially dropping or withdrawing from courses before university deadlines.
- Refer to the UCI academic calendar for withdrawal policies, procedures, and refund information.
- The deadline to add, drop, or change courses is the end of Week 2 at 5:00 PM.
- Changes after Week 2 are subject to UCI Registrar procedures.

Academic Integrity

- Students are responsible for maintaining academic integrity.
- Violations of academic integrity are not tolerated.
- Examples of cheating include:
 - Copying exams from other students.
 - Stealing exam keys.
 - Paying someone else to take an exam.
- Academic integrity violations may result in an F for the course.
- Severe violations may result in expulsion.
- Students who are unsure whether an action constitutes cheating should consult the instructor before proceeding.

Third-Party Tools

- Students should review the accessibility and privacy statements associated with third-party tools used in the course.

Copyright

- Course materials may be protected by copyright.
- Instructor-created materials include:

- Lectures
 - PowerPoint presentations
 - Tests
 - Outlines
 - Similar instructional materials
- Students may:
 - Take notes.
 - Make copies of course materials for personal use.
 - Share materials with other students enrolled in the course.
- Students may not reproduce, distribute, display, post, or upload course materials without written permission from the instructor.
- Unauthorized distribution may result in student conduct proceedings.
- Students retain copyright ownership of their own original papers and exam essays.