

# Stat 563: Mathematical Statistics III

Spring 2024

Section 001 (63037), Mon/Wed 11:30–12:45

EB 95

Professor
Dr. Bob Fountain
FMH 464M
Mon/Wed 1:00–2:00
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Grading	
Homework	50%
Midterm	25%
Final	25%

- ◆ Information inequality.
- ◆ Methods of finding tests, likelihood ratio tests, survey of optimum tests, Bayesian tests, union intersection method, locally most powerful tests, asymptotic distributions of likelihood ratio tests.
- ◆ Interval estimation including theory of optimum confidence set estimators.
- ◆ Analysis of variance, one-way, randomized complete block designs.
- ◆ Linear Regression, least squares, BLUE, estimation and testing with normal errors, simultaneous estimation and confidence bands.
- ◆ Categorical data analysis, Chi-square test for goodness-of-fit, test for independence and homogeneity.
- ◆ The tentative midterm exam date is Tuesday, May 6.

Text	
<i>Statistical Inference</i>	Casella/Berger

**Note:** Class notes will be available at:

<http://web.pdx.edu/~fountain/>

**DRC:**

PSU values diversity and inclusion; we are committed to fostering mutual respect and full participation for all students. My goal is to create a learning environment that is equitable, useable, inclusive, and welcoming. If any aspects of instruction or course design result in barriers to your inclusion or learning, please notify me. The [Disability Resource Center \(DRC\)](#) provides reasonable accommodations for students who encounter barriers in the learning environment. If you have, or think you may have, a disability that may affect your work in this class and feel you need accommodations, contact the Disability Resource Center to schedule an appointment and initiate a conversation about reasonable accommodations. If you already have accommodations, please contact me to make sure that I have received a faculty notification letter and discuss your accommodations. Students who need accommodations for tests and quizzes are expected to schedule their tests to overlap with the time the class is taking the test.

**Title IX:**

As an instructor, one of my responsibilities is to help create a safe learning environment for my students and for the campus as a whole. As a member of the university community, I have the responsibility to report any instances of sexual harassment, sexual violence and/or other forms of prohibited discrimination. If you would rather share information about sexual harassment, sexual violence or discrimination to a confidential employee who does not have this reporting responsibility, you can find [a list](#) of those individuals.

**FERPA:**

We will use technology for virtual meetings and recordings in this course. Our use of such technology is governed by FERPA, the [Acceptable Use Policy](#) and PSU's [Student Code of Conduct](#). A record of all meetings and recordings is kept and stored by PSU, in accordance with the Acceptable Use Policy and FERPA. Your instructor will not share recordings of your class activities outside of course participants, which include your fellow students, TAs/GAs/Mentors, and any guest faculty or community-based learning partners that we may engage with. **You may not share recordings outside of this course.** Doing so may result in disciplinary action.