

Statistics 495 : Teaching College Statistics

Location: Boelter 9413

Time: Monday 2:00-2:50pm

1 Important People

Teaching Assistant Coordinator (TAC): Kekona Sorenson

Email: [REDACTED]

Website: www.stat.ucla.edu/~kekona

Office: MS [REDACTED]

Office Hours: Monday 1:00-1:58PM

Faculty Advisor: Rob Gould

Email: [REDACTED]

Office: MS [REDACTED]

2 Course Objectives

If you are taking this course, then, more than likely, you will be a statistics TA at some point during your graduate career. The goal here is to ease your fears and prepare you to become effective instructors. To do this, we will expose you to a variety of pedagogical tools, resources and general expectations that are specific to our department. Our hope is to also develop the intangibles that are necessary for becoming engaging instructors and effective communicators.

You will also be assigned to a "mentor" TA who will help guide you through the learning process and help ease the anxiety as you begin your teaching journey. These mentor TA's are experienced and incredibly friendly.

3 Requirements and Assignments

3.1 Early Quarter TA Observations (Due Date: Before microteaching)

Before diving into the proverbial deep end, we will get our feet wet by observing a live discussion and lab section given by an experienced TA (your mentor TA). Afterwards, you will fill out an evaluation form to help guide you in a specific assessment of your observation. The goals here are to get familiar with the atmosphere of discussion and lab sections, to see how TA's and students interact, and to notice what makes a TA effective.

3.2 Microteaching (Due Date: November 1st or November 8th)

We now get up to our knees in the pool, with floaties still on our arms... Each student will prepare a short **FIVE** minute lesson on an introductory topic in statistics. Your audience will be your peers in this class. The goal here is to develop a classroom presence, get comfortable communicating ideas to people, develop a time sense for lessons, and to understand that teaching is more interactive than giving a presentation.

3.3 Final Project (Due Date: By November 21st)

The floaties are gone, and we are now at the edge of the diving board... Each student will coordinate with their mentor TA to serve as a "substitute TA" for part of their actual, live and current introductory statistics discussion. Your mentor TA will observe and give constructive feedback. The goals here are to put to use everything you have learned to use on an actual discussion section.

4 Course Schedule

4.1 Week 1: September 27th - Preparing to Become a Statistics TA

- Introduction and Discussion of Syllabus
- Teaching Philosophy Statements
- Nuts and bolts of "TA-ing" in the Statistics Department
- Suggested Readings (On my website: Garfield and Ahlgren, Moore, Cobb)

4.2 Week 2: October 4th - Computational Resources for Teaching Statistics

- Survey of the various computational resources available to you
- Moodle, Fathom, R, STATA, SOCR, Creating a website

4.3 Week 3: October 11th - The Theory of Teaching Statistics

- Guest speaker: Your fearless teaching advisor: Rob Gould
- Topics:
 - The importance and challenges of statistics education
 - The current goals of the statistics community
 - Statistics Education $\neq$ Mathematics
- To prepare for microteaching during weeks 6 and 7: Microteaching Handout- Guidelines and Topics

4.4 Week 4: October 18th - Active Learning: Introductory Statistics Activities

- Guest speaker: Rob Gould
- Topic: Designing interactive assignments that support student collaboration and communicate concepts in a tangible and clear way.
- NOTE: Next week is the Academic Integrity Workshop

4.5 Week 5: October 25th - No Class - Academic Integrity Workshop

- In lieu of class, you will be attending a mandatory workshop which discusses academic integrity and sexual harassment for TA's.
- Date/time: Tuesday October 26th from 12:00PM - 2:00PM
- Location : The Faculty Center - Downstairs Lounge

4.6 Week 6: November 1st - Microteaching Lessons given by you

4.7 Week 7: November 8th - Microteaching continued...

4.8 Week 8: November 15th - The Practice of Teaching Statistics - TA Panel

- Guest Speakers: A panel of experienced, popular and highly coveted statistics TAs from our department.
- Topic: They will share their experiences, offer advice and field your lingering questions.

4.9 Week 9: November 22nd - Wrap up

- Revisit philosophy of teaching statements from first day of class
- Constructive criticisms of microteaching lessons
- Survey of guest speakers
- Share experiences of TA observations and substitute TA lessons.

4.10 Week 10: November 29th - No Class