

# Outline

- Assistantships
- Teaching
- Getting the Most out of Graduate School
- Prerequisite Mathematics Knowledge

# Assistantships

- Administrative Assistant (AA)
- Research Assistant (RA)
- Teaching Assistant (TA)

# Administrative Assistantships

- Administrative assistantships are uncommon but can be used to pay a student for help with things other than research or teaching.
- For example, we recently hired a graduate student to help with recruiting of undergraduate Statistics majors.

## Research Assistantships

- Students working as research assistants typically assist faculty with statistical research or perform statistical consulting work for staff, students, and faculty at Iowa State.
- Research assistantships are paid for by grants or Foundation funds.
- Individual faculty, as well as research centers (e.g., CSAFE, CSSM), provide research assistantships.
- Companies may also fund research assistantships (e.g., After Inc., Corteva).

# Teaching Assistantships

- Grader, Lab Instructor, Course Instructor
- Types of courses: algebra-based introductory statistics, calculus-based introductory statistics, mathematical statistics, applied statistics.
- Types of students:

	Non-Statistics Major	Statistics Major
Undergraduate	✓	✓
Graduate	✓	✓

## Assistantships provide ...

- Stipend: Halftime assistantship is 20 hours per week and pays \$2,346 per month. Each semester is 4.5 months. Summer is 0 to 3 months.
- Tuition scholarship: Tuition is paid in full for PhD students on halftime assistantships. 50% tuition is paid for MS students on halftime assistantships.
- Benefits: See <https://www.grad-college.iastate.edu/finance/assistantships/>.

## How are assistantships assigned?

- Statistics Associate Chair Petrutza Caragea manages graduate student assistantships.
- Students admitted with a promise of support who are making adequate progress in our program have first priority for support.
- Faculty with research assistantship positions often seek students who have done well in coursework.
- Communication skills are important for being an effective teaching assistant.

## Expectations for Students on Assistantships

- An RA is supervised by a faculty member, a research team, or a company supervisor.
- A TA is supervised by a course coordinator or course instructor.
- Supervisor should make expectations clear. Ask if anything is not clear.

## How to Prepare for Your Teaching Assistantship

- First teaching schedule will be available a few weeks before classes start. Check for conflicts with course schedule and other assignments as soon as possible and notify Professor Caragea of any problems.
- You will usually hear from course coordinator or instructor about your teaching assignment around August 16 (first day of fall appointments).
- Make sure you are available for meetings the week of August 16th.
- The first day of class is August 21.

## Comments on Teaching

Make it clear to students that . . .

- you want them to learn the course material,
- you care about their learning,
- you will work hard to explain the course material in a clear and organized way,
- you will listen to their questions without judgement, and
- you will patiently answer their questions as clearly as you can.

## Comments on Teaching

- Consider how things might look from each student's point of view. Their backgrounds and skill sets may be very different from your own, so it is important to think carefully about how to explain things in ways your students will understand.
- Teach the students you have not the students you wish you had. Meet students where they are.
- Put time and effort into teaching so that you feel good about the work that you are doing to help students learn statistics!

# Teaching is Rewarding

- It feels good to help others learn.
- Presenting to a classroom of students is a valuable experience.

## Learn from Mistakes and Move Forward

- Not every day will go well or as planned.
- Correct mistakes next class period, through Canvas, or through email to class.
- Explain things better on a second try.
- Try your best and get better with experience.

# Good Teaching is Important for the Department

- Most of the department's budget comes from tuition paid by the students we teach.
- It is our responsibility to help students learn.
- Some students can be difficult to work with, but always treat students with respect.

# Questions about Teaching?

## Getting the Most out of Graduate School

- Graduate school is supposed to be challenging.
- Seek a deeper understanding of the material than is necessary to get good grades.
- All the material we teach is useful.
- You will naturally find some topics more interesting than others.
- Try to understand the entire curriculum. You are building a foundation to rely on for many years to come.

# Getting the Most out of Graduate School

- Try to get to know all your fellow students.
- Reach out to others and be receptive when people reach out to you.
- A small percentage of the world's population chooses to study statistics in graduate school. We are in this together. Help and support each other. Be kind to each other.

# The Faculty Want You to Succeed!

- We are on your side.
- We are trying to help you learn statistics and earn a degree rather than prevent you from getting a degree.
- Ideally, students complete MS degree in two years and PhD in five years total.
- Learn statistics, solve problems, and tell others what you have done in creative component (MS) or dissertation (PhD).

# Questions about Graduate School?

# Prerequisite Mathematics Knowledge

- Calculus
- Linear Algebra