

Department of Statistics – Iowa State University

A Brief Overview for New Graduate Students

Getting Help

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BASIC GRADUATE STUDENT RESPONSIBILITIES

As a graduate student in the Department of Statistics you have become an important part of a large and complex organization that includes faculty, students, and staff. Each individual in the Department has certain responsibilities that, if not met, have negative impacts on us as a collective. As you begin your graduate career, please keep the following in mind.

1. Graduate students are responsible for ensuring that forms required by the University are filed on time and in the proper order. This includes forms such as the Committee Appointment and Program of Study form, the Application for Graduation, the Request for Final Oral Examination, the Dissertation Submission Form (PhD), and a number of others. There are deadlines for some of these forms (mostly the ones connected with graduation) but there are some important timing issues that need to be adhered to as well (e.g., POS must be submitted the semester before the final oral exam is to be held). Most of the particulars of all of this will not become relevant for you until at least next year, and the University is in the process of making many of these forms electronic. The point now is to be aware that you will be responsible for ensuring forms are submitted in the proper order and by any pertinent deadlines, not your major professor, not the office staff, not the DOGE or the Department Chair. You.
2. If you are on a TA or RA, you are both a student and an employee. The State of Iowa and the University consider your assistantship to be a job – if you are not an Iowa native, this is the reason you are charged in-state tuition instead of out-of-state tuition, for example. So you should treat your assistantship largely as a job. In particular
 - a. You must show up on time at the beginning of each semester, unless you have received permission from the Department Chair to be at a professional

- conference or other academic event. This starting date is listed on your Letter of Intent, and is generally sometime the week before the start of classes.
- b. In the same way that you need to be here for the starting date on your letter of intent, you need to be here until the ending date.
 - c. Your supervisor (e.g., course coordinator) is your boss. If you and your supervisor agree to a set of hours you will be available for students to come and ask questions (office hours) that schedule is not a suggestion. It is a job requirement. If your supervisor assigns you a grading task, that is a work assignment, not a request for a favor.
 - d. If you are ill or otherwise incapacitated, you must notify your supervisor as soon as possible that you will be unable to come to work. We suggest obtaining your supervisor's cell phone number. If you are unable to reach your supervisor, notify the staff in the main office.
 - e. As for employees in any job, incompetence or negligence results in dismissal. The assistantship you were offered is guaranteed for a certain period of time (usually stated in a letter to you from the Department) subject to (i) satisfactory academic progress and (ii) satisfactory performance of assistantship duties.
 - f. The university requires that you fill out a statement on Conflict of Interest and Commitment annually. This can be done electronically, and instructions for doing this will be sent via email early in the semester. As a new graduate student on an assistantship, you should do this early in the Fall term.
 - g. As an employee, you are a representative of the Department when you stand up in front of a group of students or work one-on-one to provide help in understanding material students may be struggling with. Your actions reflect on the Department, and the Department is very zealous about protecting its reputation on campus for excellence in graduate student teaching.
3. As a student, you also have certain responsibilities. Among these are
- a. Realize that graduate courses involve another step in expectations, similar to what you may have experienced in moving from high school to undergraduate courses at a college or university. You are expected to "learn" and that will involve a good deal of effort on your part – you cannot expect to be "taught" without working harder than you have ever worked before to master academic material.
 - b. Determine what study habits and approaches work best for you. Some students learn best in groups, others learn best working alone, yet others with some combination.
 - c. Be cooperative and congenial with your fellow graduate students, and your office mates in particular. No one has to fail in order for you to succeed. Work together on managing your office space, noise levels, schedules, and other facets of graduate life.
 - d. Be aware of the need for graduate students to maintain an overall gpa of 3.0 or higher. A student who has a gpa of less than 3.0 will be placed on academic

probation by the Graduate College. The consequences of this are that a hold is placed on your registration for additional semesters, which can only be waived by a formal request from the program DOGE. To continue your assistantship also requires a request to the university from the Chair or Associate Chair of the Department. If this request is made you may keep your assistantship, but you will not be eligible for the university tuition scholarship that assistantship holders normally receive. The one exception to these negative consequences is if your gpa is less than 3.0 at the end of your first semester of study at ISU. You are then given a one semester grace period without being placed on academic probation for that semester.

4. There is a good deal of online file storage used across the university and department. This increases the need for everyone to be aware of security issues. Online data security may be more important to you as you begin doing research, but you should be aware of issues involved even at the beginning of your program.
5. Be aware there are many resources available to you. Take advantage of them. Ask if you don't know. Ask more senior graduate students. Ask faculty, even if they are not instructors of your courses. Ask the DOGE. Ask the staff. Be polite, and understand that everyone is busy, but ask.
6. If you have conflicts you are unable to resolve in your roles as student and employee, talk to the DOGE or the Department Chair or the Associate Department Chair. Don't get into protracted struggles with students for whom you are a TA or instructor, your supervisor for a TA or RA, or your fellow graduate students. It is part of our responsibilities to help resolve such situations.

English Tests for International Students

If you are an international student, you are required to take one or more examinations of your English language proficiency. In particular, international students who are being considered for a Teaching Assistantship must obtain "certification" to be assigned duties as a TA.

1. Oral English Certification Test

If you have been offered a Teaching Assistantship as part of the admission process, you **MUST** take the OECT and achieve an acceptable score. If you do not currently have a TA offer but you think there is a possibility you will seek a TA appointment in the future you should take the OECT as well. You will be less attractive for a TA appointment if you do not already have the necessary OECT certification. There are two parts to the OECT called the Oral Proficiency Interview and the TEACH. See <http://acp.grad-college.iastate.edu/oral-english-certification-test> for more information on OECT.

If you have taken the OECT and have been assessed as level 3 or level 4, it is considered part of your assistantship duties to raise this score in the future. A failure to do so is considered as

unsatisfactory performance of assistantship duties. Students enrolled in English 180 can re-take OECT at the end of the semester of enrollment. There are a number of ways to improve your English communication skills, some formal and some informal. The Center for Communication Excellence in the Graduate College offers Pronunciation Practice sessions you can register for, Pronunciation Laptops you can check out and use at home, English Pronunciation Software and several Conversation Opportunities (one called “Coffee, Tea and English”, one called “Daily English Conversations”, and one called “Voice Town”). Information on all of these resources can be found on links from the web site given in the previous paragraph.

If you are attempting to improve your oral English skill, it is a mistake to speak English only for classwork. Join in conversations with other graduate students (in English). Attend activities such as those connected with the STATERS. Make it a point to use English even when you don’t have to.

2. English Placement Test

This test is required of ALL incoming students who do not have English as their first language or are not excused due to a high score on TOEFL (higher than 600 on paper, or higher than 100 on internet based), or IELTS (higher than 7.5). For more information see the following site: <http://apling.public.iastate.edu/ept.html> and, in particular, note that you must register for this test.

PROFESSIONAL DEVELOPMENT AS A GRADUATE STUDENT

To this point in your life there has been a dichotomy between education and career (or school and work). Individuals finish high school or college and then find work. Many students graduating with a Bachelor’s degree find employment in an area that is not directly connected with their major. Their career is not determined, and in many cases may barely be influenced, by what they did in college. That changes when you become a graduate student, and especially when you become a graduate student in a technical field such as statistics.

Certainly there are individuals with MS and PhD degrees that are doing work that is not connected with their degrees, but they are the exception rather than the rule. When you graduate with an advanced degree (MS or PhD) in Statistics you expect to begin a career that depends directly on your education. Your graduate education is, in fact, the first step in defining your career path. Because of this, it is wise to take advantage of opportunities for professional development during your graduate program. Such opportunities can be many and varied, but we list a few of the possibilities here, and typical points in one’s graduate program at which they become meaningful.

- STAT-ers – the graduate student organization in the Department of Statistics. The STAT-ers organize many activities, some academic in nature, some recreational, some service oriented, and some just for fun. Graduate students can participate in STAT-ers activities starting in their first semester. STAT-ers has recently become an official student chapter of the American Statistical Association (ASA).
- STATCOM – Statistics in the Community is a graduate student organization that provides pro bono consulting for nonprofit and government entities. Teams of graduate students work on projects and submit reports or analyses to the appropriate clients. This is an excellent opportunity to gain some consulting experience. Graduate students can participate in STATCOM at any time during their program.
- Internships – many students participate in summer internships at a wide variety of companies, agencies, and other institutions. Internships are typically arranged directly by students, although some organizations will come to the Department with a request to advertise internships, and a few will send a representative to Snedecor Hall to conduct interviews for internship positions. Some internships can be successfully managed after one year of study, but many require more in-depth skills that are better suited for students who have completed two or more years of study.
- Workshops and Society Meetings – presenting a poster or paper at a society meeting or workshop is an excellent activity that adds to your curriculum vitae as well as being an enjoyable experience. The Graduate and Professional Student Senate at Iowa State has limited funds that students may apply for to help defray the costs associated with travel. The Department also has some funds that students can apply for. Faculty involvement is usually needed to help students with the process of submitting an abstract and developing an appropriate presentation, so these activities typically are most easily undertaken once one has a major professor. There are occasional workshops that are hosted by SAMSI or other organizations that may include the possibility to apply for travel funding. The ASA website is a good place to check for such opportunities.
- Join a professional society, such as ASA, the Biometric Society, Environmetrics Society, or others. Many of these societies, such as ASA, have student memberships.
- The Graduate College at Iowa State conducts any number of workshops for graduate students and postdoctoral associates that deal with professional development. Check the web page of the Graduate College to learn more about these opportunities.
- Chapter 8 of the Graduate College Handbook contains additional information on opportunities and services that are available to graduate students through the Graduate College. The Graduate College Handbook may be accessed through the Graduate College website (see also the final section of this handout).

Progression of Your Graduate Degree Program

There are various milestones in your degree program, some of which are obvious (completing core courses, passing written exams) or may have Graduate College forms associated with them (passing oral exams, forming a committee). While there is no one “correct” way to progress through our program, and any advice we give will always have exceptions, there are a number of points we can make about a typical program.

- For students entering the program with a Bachelor’s degree, the first year of study is largely pre-determined, with Stat 500, Stat 542, and Stat 579 in the Fall, then Stat 510, Stat 543, and room for one elective in the Spring. PhD students who can benefit from obtaining or refreshing their real analysis skills often use the Spring elective for that, although they may also use the summer for this purpose if they are staying in Ames during that time.
- For students entering the program with a Master’s degree in statistics, the first year of study typically includes Stat 520 and Stat 641 in the Fall, then Stat 601 and Stat 642 in the Spring. Depending on the background obtained at previous institutions, some students choose to include Stat 510 in the Spring, and the Department has ways to deal with scheduling conflicts that may arise (at least sometimes in the past, Stat 510 and Stat 601 have had overlap in meeting times). Students with previous Master’s degrees in statistics are encouraged to keep in touch with the DOGE concerning progress in courses so that we can try to avoid either suggesting classes that are not needed, or suggesting classes for which it would be beneficial to have a stronger background prior to attempting.
- Students working toward the PhD degree often complete the MS degree somewhere along the line. This is true from students entering with a Bachelor’s degree and sometimes even students who enter the program with a Master’s degree will finish an MS degree in this program as well.
- All students taking the MS core courses (500, 510, 542, 543) are encouraged to take the written Master’s exam at the end of the first year of study. Although this is not a technical requirement for students entering the program as PhD students, it is a valuable experience as a barometer of where one stands relative to the expectations of the program. Success on this exam is required to obtain an MS degree, regardless of whether one was admitted as an MS or a PhD student, with a Bachelor’s degree or with a Master’s degree.
- Students entering with a Bachelor’s degree often begin to think about finding a major professor for the MS degree in the second semester of study, and usually try to have this finalized by early in the third semester of their program. If you need to list the name of a major professor or advisor prior to the time that you have officially designated a major professor on the Committee Appointment form (POSC – see below) put the name of the Statistics DOGE.

- Students entering with a Master's degree in statistics often begin to explore potential research areas in the first year of study. Students are encouraged to visit with faculty to discuss research areas those faculty are pursuing and to become familiar with the breadth of research being conducted in the Department. All PhD students, regardless of whether entering with a Bachelor's degree or a Master's degree, should reach agreement with a member of the graduate faculty to have that individual serve as major professor for the remainder of the degree program shortly after successful completion of the written qualifying examination. Many students have this arrangement in place prior to the written qualifying exam, but that is not required.
- The POSC (Program of Study and Committee appointment) form needs to be filed for a degree program (MS or PhD) the semester before the final oral exam is held. This form is a list of the classwork (course credits) that you are applying to a particular degree program. Due to changes in course numbers dictated by the Graduate College, not all 500-level courses in Statistics count for graduate credit in a Statistics degree program. On the other hand, some 400-level courses in other programs (such as Mathematics) can be used on a POSC in Statistics. So be careful, and ask if you're not sure.
- Our Department offers two co-major PhD options, what we call a Methods co-major and what we call a Theory co-major. If you have interest in one of these programs, seek information about the requirements in the first year of study. Interest in a co-major program needs to be expressed before you take the written PhD qualifying exam, as there are some differences in that exam for Statistics majors and for co-majors.
- Students admitted to the PhD program and who begin the program with the core Master's sequences in year one have the option in the second year of proceeding directly to the PhD core courses, or gaining additional breadth and possibly completing the MS program and waiting until year three for the PhD core. There is no right or wrong way to do this, and it has little to no effect on total time-to-degree for PhD students.
- The PhD written qualifying examination is given in the summer. Students usually take this exam in the summer immediately following completion of the PhD core courses.
- Many students keep the same major professor for the PhD degree as they had for the MS degree. Many do not, and have different major professors for the two degrees. This is not an issue, of course, for students entering the program and beginning with the PhD core courses in their first year of study. One point to keep in mind is that willingness of a graduate faculty member to serve as major professor for the MS degree does not necessarily imply the same willingness for the PhD degree.
- The Committee Appointment form mentioned previously has now been combined with the Program of Study form as what is called the POSC form. All POSC forms are now electronic. You fill it out (go to the Graduate College web page to get all forms you will need) and it automatically gets routed to everyone who must approve it, which is your major professor, committee members, and the program DOGE.
- An MS committee typically consists of three faculty (including the major professor), at least two of which are members of the Statistics graduate faculty. A PhD committee for

a Statistics major typically consists of five faculty, at least three of which (and usually four) are members of the graduate Statistics faculty. The fifth committee member may be a faculty member in Statistics or may be a faculty member from some program other than Statistics. If all five members of the committee are Statistics faculty, one of the members must be designated as the “outside member”, meaning that individual does not include the topical area of the dissertation as one of their primary research areas.

- The committee for a PhD co-major consists of at least five faculty, including each of the two major professors from the different programs. There must be at least two committee members from each program associated with the degree.
- The POSC, which MUST be filed and approved in the semester before the final oral exam is taken (true for both MS and PhD degrees) and at least three months before the preliminary oral exam (for PhD students only) serves as a list of the coursework you are applying toward a given degree. While an existing POS may be modified by mutual consent of everyone approving the original, it basically serves as a contract between you and the university that the courses listed on it will fulfill the coursework component of the degree program. Other than in concurrent degree programs (see your DOGE) once a course has been used on a POS form for a given degree, it cannot be used on another POS for some other degree at the same level.
- The point of the previous bullet is not true for sequential MS and PhD degrees. In the Statistics programs, the PhD POS may (and generally will) contain any course used on the MS POS, except for Stat 599 (creative component). Thus, if you complete an MS degree in Statistics with 34 credits, 4 of which are Stat 599, you already have 30 of the 72 credits needed for the PhD POS. Students entering with a Master’s degree in Statistics who wish to transfer course credits from a previous institution should consult the DOGE.
- MS students usually take 4 credits of Stat 599 connected with completion of the creative component. A student may take as many credits of 599 as they wish, but only 4 may be used on the MS POS.
- PhD students take a minimum of 18 credits of Stat 699 connected with completion of a dissertation. There is no maximum number of research credits that may be used on a PhD POS, as long as other program requirements such as core courses and number of electives are met. A “classic” POS for the PhD will contain 54 coursework credits and 18 research credits, but many PhD POS forms deviate from this structure.
- The written MS and PhD qualifying exams are PROGRAM requirements. The Graduate College and the University don’t really care about these exams one way or the other. They care about the Oral Final Exam for the MS and both the Oral Preliminary Exam and Oral Final Exam for the PhD. That is why there are Graduate College forms for requesting the scheduling and reporting the results of these oral exams, but not similarly for the written exams. This is also why an MS student must pass the written MS exam before having a final oral exam and, similarly, a PhD student must pass the written qualifying exam before having an oral preliminary exam.

Graduate College Handbook

The policy document that governs graduate students is called the Graduate College Handbook. This document can be accessed from the web page of the Graduate College. Although it can be difficult to sort through all of the information in this document, you should be aware that it is the official governing source for Graduate College policy. If needed, the Chair, Associate Chair, or DOGE can help you find and interpret what is contained in this document. Be aware also that the Graduate Council is the body that sets Graduate College policy and hence makes revisions to the Graduate College Handbook and this happens regularly. So make certain that you have the most recent version of the handbook if seeking information in it. There is representation of graduate students on the Graduate Council, through the Graduate and Professional Students Senate.