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# DEPARTMENT OF STATISTICS GRADUATE STUDENT MANUAL 2021~2022



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## INTRODUCTION

Graduate programs in statistics offer multiple career and research options. The Doctor of Philosophy program prepares students for research career, in both academia and industry. The Master of Science programs could lead to a terminal degree in statistics or be combined with a doctoral degree in another field. The programs emphasize both depth and breadth of the graduate study. Beyond learning theory, computing and application of statistics, and probability, students in the graduate programs must learn to convey their thoughts and ideas to a wide audience. Toward that end, we encourage all graduate students in the statistical sciences to gain experience external to traditional classroom learning. Specifically, we ask that students gain consulting experience (i.e., Statistical Consulting Service and/or StatCom), attend departmental seminars, participate in research with our outstanding faculty, or volunteer to meet with the many visitors to the department each year.

- Communication skills are important for success in the statistical sciences. Everyone can improve communication skills by paying attention to convey information effectively and efficiently. Students are encouraged to give professional lectures in appropriate seminars.
- An informal mathematics placement exam is given upon entry to the department in order to provide advice to students about enrollment in courses with mathematical prerequisites. This take-home exam takes only a short time and students discuss the results privately with the exam grader before enrollment in courses.
- Speakers in the departmental weekly seminars offer insight into a wide range of research and employment opportunities. All graduate students are expected to enroll in at least one of the weekly departmental seminars each fall and spring.

Students who wish to depart from the requirements of a degree program, or who must complete some of the requirements later than times given in these pages, must send a written petition to the Graduate Committee Chair through the Graduate Coordinator. The Graduate Committee Chair, after consultation with the Department Head, will reply in writing and copies will be sent to the student's major professor/advisor and kept in the student's record folder. All petitions to the Graduate Committee Chair should be submitted early enough to allow time for alternate courses of action that the Chair may advise.

## MASTER OF SCIENCE PROGRAMS

Besides the general requirements of the Graduate School for the degree of Master of Science (M.S.), a successful M.S. student must: obtain a minimum of 30 credit hours (with most M.S. degrees requiring more), submit an acceptable plan of study to the Graduate School, and pass an oral examination (if this has not been waived). The Department of Statistics M.S. degree programs include: Applied Statistics, Mathematical Statistics, Computational Finance, and the joint M.S. in Statistics and Computer Science. The course requirements appear on the Department of Statistics web page ([http://www.stat.purdue.edu/academic\\_programs/graduate/gradMasters.php](http://www.stat.purdue.edu/academic_programs/graduate/gradMasters.php)).

## **MAJOR PROFESSOR AND ADVISORY COMMITTEE**

During the first semester, a student should select and obtain the agreement of a faculty member to serve as their major professor. The student should select and obtain the agreement of two more faculty members to serve on their M.S. Advisory Committee along with the Major Professor.

## **M.S. PLAN OF STUDY**

A plan of study should be submitted electronically on myPurdue by the end of the first semester. The M.S. programs normally require four semesters to complete. Please ask faculty to serve on your committee prior to submitting your plan of study. The Department of Statistics must approve the plan of study before the beginning of the semester in which the degree is awarded. Along with the approval of the student's three-member Advisory Committee, the M.S. plan of study requires the approval of the Director of Graduate Programs.

Elective courses listed for credit on the plan of study may not include any STAT course whose number is 51200 or less (with the exception of STAT 50600), or any MATH course numbered 51000 or less (with the exception of MATH 50400). Some 400 level CS courses in advanced programming or data structures may be allowed on a M.S. plan of study with approval of the Director of Graduate Programs. One or two credit courses, and independent study courses, are not allowed on the plan of study. Any course may, however, be taken for credit and will appear on the student's transcript with the grade earned.

## **FINAL EXAMINATION**

Each M.S. program in statistics requires a final examination. The exam cannot be taken more than three times. If a student fails the exam three times, he/she will be dismissed from the department. Retaking the final exam is contingent upon satisfactory grades in the program.

## **TRANSFER FROM M.S. TO PH.D.**

Students admitted to the M.S. program, but not the Ph.D. program, who desire to transfer to the Ph.D. program, should apply before the completion of the M.S. (when grades are available for at least six courses in the M.S. program). Two letters of recommendation along with a brief application letter should be sent to the Chair of the Admissions Committee via the Graduate Coordinator. April 1<sup>st</sup> is the Spring M.S. to Ph.D. transfer application deadline and October 15<sup>th</sup>, is the fall deadline.

## **M.S. IN MATHEMATICAL STATISTICS**

This program consists of 30 credits and has a thesis option. If the student chooses the thesis option, it is necessary to sign up for and pass STAT 698 for at least 3 credit hours of M.S. research, culminating in an oral defense with the student's advisory committee.

The course requirements for this program are satisfied by the first four semesters of a normal doctoral program. The plan of study should include, any five of the following: STAT 52000, 52500, 52600, 52800, 53200, 53800, 53900, 55300, 57600, or 58000. Substitutes of other courses for courses on this list may be allowed on petition to the department. The following courses are offered as guides. They should be adapted to suit a student's preparation.

Semester	1	2	3	4
	51900	52600	54500	52000
	52500	52800	55300	Elective
	MA 54400	53200	Elective	54600

A final examination is required. The final examination may consist of the presentation and discussion of a published paper chosen by the student and the Chair of the student's M.S. Advisory Committee. The student is responsible for arranging this examination with the student's M.S. Advisory Committee. The final examination should be scheduled early in the last semester before receipt of the M.S. degree. A student who has accumulated three points on the Qualifying Examination may have the examination waived.

### M.S. IN APPLIED STATISTICS

This program prepares students for employment as professional statisticians. It is not designed to be preparation for the Ph.D. degree program, though students completing the program with outstanding records are encouraged to consider the Ph.D. degree.

At least 33 credit hours are required for the M.S. in Applied Statistics. In general, all credit hours must be listed as STAT courses. The plan of study should emphasize methodological and computational courses rather than advanced probability or advanced mathematical statistics courses which are more appropriate for the M.S. in Mathematical Statistics. The chair (Major Professor) should be a member of the M.S. Applied Statistics Exam Committee.

The following programs are offered as guides. They should be adapted to suit a student's preparation. Students are encouraged not to take courses covering material they have learned previously. Note: A M.S. student in Applied Statistics should take 51400 the first semester and 52500 in the first year to be eligible to apply for an assistantship in the Statistical Consulting Service (SCS). You may reference the Statistical Consulting Service at the following URL: [http://www.stat.purdue.edu/scs/how\\_to/become\\_consultant.html](http://www.stat.purdue.edu/scs/how_to/become_consultant.html)

The following courses are offered as guides. They should be adapted to suit the student's needs and advisory committee's recommendation.

Semester	1	2	3	4
	51900 (or 51600)	52800 (or 51700)	51300	58200
	51400	54500**	52400	54600***
	52500	52000 or 52200*	52600	52000 or 52200*

\*STAT 52200 is only offered in odd years, e.g. 2017

\*\*STAT 545 is Introduction to Computational Statistics

\*\*\*STAT 546 is the 2<sup>nd</sup> course in Computational Statistics

The final examination is conducted by the Department's M.S. Applied Statistics Exam Committee. The focus of the examination will be a Problem-Project Set distributed to all candidates several weeks before the exam. This will contain problems and projects important to a working

statistician, which require careful thought and originality. The student will prepare a written report on the assigned part of the Problem-Project Set to submit to the examination committee at least a week before the examination. The examination will be a presentation and discussion of the written report. The final examination will be scheduled during the last semester of the program.

### **M.S. OF DATA SCIENCE IN FINANCE**

The goal of the program is to equip students with the tools necessary to pursue a career in a quantitative financial field. The 2-year course work provides students with comprehensive and practical knowledge of the mathematical, statistical, and computational skills. The following courses are offered as guides. They should be adapted to suit a student’s needs and an advisory committee’s recommendation. This degree requires 33 credit hours plus an oral final exam. Students in this program are also required to take at least one Data Science in Finance seminar course.

<b>Semester</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
	51900	52600	54100	598MLF2
	52500	52000	52800	Elective 1
	54500	54000	598MLF1	Elective 2

Electives (6 credits) two courses from STAT 532, STAT 546, CS 543, CS 544, CS 547, CS 573, CS 578

### **M.S. IN JOINT STATISTICS AND COMPUTER SCIENCE**

The M.S. in Statistics with specialization in Joint Statistics and Computer Science. This joint M.S. program consists of 30 credits. Students must form an advisory committee consisting of three faculty, with one member with a primary appointment in CS. The non-thesis option requires five courses from each department. Information about this program is available at [https://www.stat.purdue.edu/academic\\_programs/graduate/joint\\_stat\\_cs.html](https://www.stat.purdue.edu/academic_programs/graduate/joint_stat_cs.html).

### **CHECKLIST FOR M.S. STUDENTS**

<b>Step</b>	<b>Completion Time</b>	<b>Who To See</b>
Take informal Mathematics Placement Exam	Orientation Week or before	Appointment Sheet in Orientation Packet
Register for courses	Orientation Week	Consult Faculty Mentor, Register courses on myPurdue
Pay fees	Orientation Week	Pay fees online through myPurdue or at the Bursar
Satisfy Admission Conditions (Graduate School offer letter)	First semester	Submit documents to Graduate School or PUSH

Choose a M.S. Advisory Committee Chair and two more committee members	First semester	Consult Faculty Mentor
Submit online M.S. plan of study	First semester	See MyPurdue
Be sure all changes that have occurred in coursework have been changed on original plan of study	Beginning of final semester	Graduate Coordinator
Schedule M.S. Final Exam (unless waived)	Final semester	Your M.S. Committee (or the Chair of the Applied Statistics M.S. Exam Committee)
Check deadlines for graduation	<a href="https://www.purdue.edu/gradschool/about/calendar/">https://www.purdue.edu/gradschool/about/calendar/</a>	Graduate School

## **DOCTOR OF PHILOSOPHY**

The Department of Statistics Ph.D. requires 90 credit hours. The credits will be comprised of credits from the M.S. plan of study, courses listed on the Ph.D. plan of study, seminars, and all STAT 69900 research credits. Up to 30 credits may be transferred from the M.S. plan of study. In addition, to obtaining 90 credits, a Ph.D. student must: pass the qualifying exams, complete a plan of study, pass a preliminary exam, pass a final exam, and deposit a thesis. All of these are required steps for the Ph.D. program.

### **PH.D. COURSEWORK**

Coursework should be planned so that the Ph.D. Qualifying Examinations can be taken on schedule. A sample course list is in the MS in Mathematical Statistics MS program description.

### **QUALIFYING EXAMINATIONS**

Ph.D. students are expected to take the Qualifying Examinations as soon as possible and to give the highest priority in registration for courses that prepare them for these exams. There are four Ph.D. Qualifying Examinations that cover material in methodology, probability, mathematical statistics, and computational statistics and are based on the core courses of the first year of graduate study in statistics. Exams are given from 8:00 am to noon on separate days just before the fall and spring semesters. Each exam is a closed book written exam. The Statistical Theory and Computational Statistics Exams are offered at the beginning of fall semesters. The Probability and Statistical Methodology Exams are offered at the beginning of spring semesters.

Students must accumulate a total of five points from at least three of the four exams to pass the qualifying exams. The number of points that may be earned for each exam is zero to three points, in half point increments. If an exam is repeated, only the highest score earned for that exam is counted toward the point accumulation.



The courses associated with the qualifying exams are listed below. Descriptions of these courses and their textbooks are on the departmental website. Previous topics, as well as copies of previous exams, can also be found on the internal Department of Statistics website (StatCentral).

- The Probability Qualifying Exam is based on material of STAT 51900 and STAT 53200.
- The Statistical Theory Qualifying Exam is based on material of STAT 52800 and STAT 55300.
- The Statistical Methodology Qualifying Exam is based on the material of STAT 52500 and STAT 52600.
- The Computational Statistics Qualifying Examination is based on material of STAT 54500 and STAT 54600. Please note that STAT 54500 has the prerequisite of an introductory programming course, e.g., CS 15900/CS 17700. Students should have some programming experience using a language such as C, C++, Pascal, FORTRAN, Java. Furthermore, students are expected to write, debug and compile a simple program in one of the above languages.

Ph.D. students are required to accumulate two points on the qualifying exams by the end of the third semester. Furthermore, students are required to pass the qualifying exams with five points by the end of the fifth semester. Exams may be retaken with no penalty. Students may request exceptions from the Graduate Committee Chair. Students who have not achieved these requirements will be reviewed by the Graduate Committee to determine if sufficient progress is being made. The student could be advised to stop his/her Ph.D. study in the program and financial support could be discontinued. The student may send a petition to the Graduate Committee Chair through the Graduate Coordinator to be recommended for continued support to enable action that would enhance employment opportunities. The advice of a faculty member should be sought before preparing such a petition. The Graduate Committee Chair, after consultation with the Department Head, will reply in writing. All petitions to the Graduate Committee Chair should be submitted early enough to allow time for an alternate course of action.

Once a student passes the Qualifying Exams, he/she is expected to register for STAT 699 research credits every semester until graduation. The student should seek out a major professor and work with an advisory committee to begin the development of a plan of study.

### **MAJOR PROFESSOR AND ADVISORY COMMITTEE**

During the first semester following a passing score on the qualifying exams, a student should select and obtain the agreement of a faculty member to serve as his/her major professor. The student should also select and obtain the agreement of three more faculty members to serve on a Ph.D. advisory committee along with the major professor. Advisory committees must contain a minimum of four members, with at least half of the members being faculty at the West Lafayette campus.

The major professor may require further courses and study or examinations in another field beyond the qualifying examinations. Before completing the qualifying examinations, a student should discuss research plans with faculty with similar research interests. The discussions may result in encouragement that the student pursues research on a particular topic. Research may begin at any time and need not wait until passing the Qualifying Examinations. The major professor should be

chosen, at the latest, within one semester of passing the Qualifying Exams. The department will not provide support for students who delay the selection.

### **PH.D. PLAN OF STUDY**

Once admitted to the Ph.D. program, doctoral students are required to file a plan of study by the end of the third semester. The plan of study will be made with the advice and approval of the Ph.D. student's advisory committee. The plan of study will be submitted electronically through myPurdue. The Ph.D. plan of study must include any courses taken as material for a qualifying examination. In addition, the plan of study should have other advanced courses approved by the Ph.D. advisory committee, including at least three 600-level Department of Statistics courses. One or two credit courses, independent study courses, as well as STAT 699 research credits are not allowed on the plan of study. These credits will be added by the Graduate School during the approval process. Any changes to the coursework on the plan of study can be changed by submitting an online change to the plan of study.

### **M.S. DEGREE FOR PH.D. STUDENTS**

A student who is studying toward a Ph.D. degree, who does not already have a M.S. degree, is expected to obtain a M.S. in Statistics. When completing a M.S. degree from Purdue, up to 30 credits may be transferred from the M.S. plan of study to the Ph.D. plan of study. It is the student's responsibility to inform the major professor of the number of credits he/she would like to count.

### **PH.D. PRELIMINARY EXAM**

A student who has passed the Qualifying Exams, and submitted an approved plan of study, is required to take the Preliminary Exam. The purpose of the Preliminary Exam is to test the preparedness of the student for research. Students must pass the Preliminary Exam at least one year before the defense of their dissertation research.

The Preliminary Exam is an oral exam that is administered by the student's Ph.D. Advisory Committee. A written proposal of 15 pages or more, excluding references, must be submitted to the student's Ph.D. Advisory Committee AND the Graduate Coordinator three weeks prior to the scheduled Preliminary Exam. During the Preliminary Exam, the student is expected to exhibit:

- Clearly defined research problems that are appropriate for a Ph.D. dissertation, specifically with respect to novelty, depth, and broad impact(s).
- Substantial knowledge of both past and current literature in the research area of interest.
- A thoughtful and clear plan, along with a description of proposed approaches. The student must demonstrate to his/her Ph.D. committee that some preliminary progress toward solving the research problem(s) has been made.
- Outline a plan and timeline for completing the proposed work.

To ensure timely academic progress, a Ph.D. student must pass the Preliminary Exam within two years after he/she passes the Qualifying Exams. Any exceptions need to be approved by the

Graduate Committee. A student who fails the Preliminary Exam must wait at least until the following session (including summer session) to repeat the examination. A Ph.D. student is required to pass the Preliminary Exam after no more than two attempts, or face dismissal.

### **ADMISSION TO CANDIDACY AND ENROLLMENT REQUIREMENT**

A student who has submitted an approved plan of study and passed the preliminary exam will be recommended to the Graduate School for admission to candidacy for the Ph.D. degree. The Graduate School requires a student be enrolled in research credit course for at least two semesters, including summer session, between passing the preliminary examination and taking the final examination (defense).

### **DEFENSE/FINAL EXAMINATION**

Ph.D. thesis research is an original project conducted by the student under supervision of the dissertation advisor or co-advisors. The research is expected to be publishable in statistical journals as research articles. When scheduling the doctoral thesis defense, the candidate should send the Graduate Coordinator the following information:

1. Date, time, and location of the defense
2. Title and abstract of the dissertation
3. Three publications or presentations
4. Brief summary of future plans

The defense is presented as a seminar or colloquium. During the defense the student demonstrates his/her research and answers questions, which are raised by the Committee and others in the audience, regarding the dissertation.

### **THESIS DEPOSIT**

Upon completion of the defense a student must schedule a thesis deposit through the Graduate School's website: <https://www.purdue.edu/gradschool/research/thesis/requirements.html>.

### **CHECKLIST FOR PH.D. STUDENTS**

<b>Step</b>	<b>Completion Time</b>	<b>Who To See</b>
Pass Oral English Proficiency Test (OEPT) (International Students)	Orientation Week	Appointment Sheet in Packet
Complete Registration	Each semester	Consult Faculty Mentor. Register courses on MyPurdue.
Pay fees	Each semester	Pay fees online through MyPurdue or at the Bursar
Satisfy Admissions Conditions (in Graduate School offer letter)	First semester	Submit documents to Graduate School or Purdue University Student Health Center

Take each qualifying exam at least once and repeat as necessary until a total of 5 points is obtained	Accumulate at least 2 points by the end of the 3 <sup>rd</sup> semester	Graduate Coordinator to sign up for exams. Exams given before start of fall and spring semesters.
Take each qualifying exam at least once	Accumulate at least 5 points by the end of the 5 <sup>th</sup> semester	Graduate Coordinator to sign up for exams. Exams given before start of fall and spring semesters.
Choose Faculty Advisor	After obtaining 5 points on Qualifying Exams	Faculty with similar research interests
Submit Ph.D. plan of study	Third semester or by end of semester you pass the qualifying exams (whichever happens first)	Faculty Advisor or Temporary Advisor and MyPurdue
Submit Preliminary Exam Request	After passing the qualifying exam and at least 2 semesters before the Final Exam	Advisory Committee
Submit Final Exam/Defense Request	Must request at least one month before your exam	Graduate Coordinator and Faculty Advisor to discuss date of exam. Then schedule on MyPurdue
Distribute Dissertation	Give each member of your advisory committee a copy of your thesis at least two weeks before your defense date	Advisory Committee
Set Dissertation Deposit	After final exam/defense is complete	Graduate school

### STATISTICS COURSES OFFERED

At the beginning of each semester, a student and his/her faculty mentor should meet and decide which courses the student should take during the semester and make a tentative plan of study for future semesters. This tentative plan of study should take into account the possibility that certain courses are not offered every semester. The department tries to keep course schedules as stable as possible within the limitations imposed by enrollments and staff. Below are the usual semesters that core courses in the graduate programs are offered.

Fall Only	Spring Only	Both Fall and Spring	Summer
52400	52000	51300	51500
53900	52200*	51400	
54100	53800	51500	
54500	54000	51600	
	55300	51700	
	54600	51900	
	58200	52500	

	598Z	52600	
		52800	
		53200	
		59700	
		MA 34100	MA50400
		MA 51100	
		MA 54400	

\*offered every other year in odd years, e.g. 2017

Courses not in these lists are offered irregularly. Special topics courses are typically designated by course number 59800 or 69500.

### **COURSE GUIDELINES**

- All students are required to register for one seminar course per semester.
- New students are required to register for Exploring Statistical Sciences (STAT 59800).
- All students entering in January must take Exploring Statistical Sciences (STAT 59800) in their second semester.
- Students who are supported by Research Assistantships must register for a minimum of six hours of Ph.D. Research credits (STAT 69900).

The Summer Semester has a limited number of course offerings for graduate degree programs. Please check the course schedule every semester for details on course availability.

### **FACULTY MENTORS**

All M.S. students and Ph.D. students who have not passed the qualifying exams are assigned faculty mentors. Students should meet with their mentors at least twice per semester to discuss courses to take and seek advice for academic issues. In addition, the Director of Graduate Programs is available to all graduate students for general counsel and guidance.

After a student passes the qualifying exams, a mentor will no longer be assigned to him/her. When a faculty member agrees to become a student's Major Professor, that faculty member automatically becomes the academic advisor to the student.

### **PROGRESS**

A normal course load for graduate students with a half-time teaching or research assistantship is nine credit hours plus one credit hour seminar per semester. Satisfactory progress on a degree program means that degree requirements will be satisfied in the normal time with satisfactory grades in courses and examinations.

The M.S. programs are normally completed in four semesters while the 5<sup>th</sup> Year M.S. program is completed in one calendar year.

The normal time for a Ph.D. student to take the qualifying examinations is at the end of the first year of study. A student who wishes to delay the qualifying examination must petition the Graduate Committee Chair. Normally, the only grounds for postponing the qualifying examinations would be an inability to take the preparatory courses in time because of the necessity to take remedial courses. Ph.D. students are expected to take courses that prepare them for the qualifying exams.

The time from admission to candidacy (passed preliminary exam) for the Ph.D. until completion of all requirements for the degree must be no more than three years. Extensions beyond three years may be granted on petition to the Graduate Committee Chair by the student and the Major Professor.

## **PERFORMANCE**

Grades of D or F are not acceptable to the Graduate School and must be made up (i.e., courses retaken). The Director of Graduate Programs may direct a student to improve a C grade obtained in a plan of study course. If a course is repeated, the earlier grade remains on the transcript along with the new grade; however, the new course grade replaces the old course grade in the grade point average (GPA).

Final grades for courses on the M.S. plan of study cannot include more than two Cs.

For the Mathematical Statistics program, performance on the M.S. examination is judged by the student's M.S. Advisory Committee. For the Fifth Year M.S. and the Applied Statistics M.S., the examination committee is the Department's Applied Statistics M.S. Exam Committee. If performance is deemed deficient, the committee will inform the candidate of a means of making up the final examination (i.e., typically, the advice is to retake the exam).

The Graduate Committee periodically reviews the progress of all students in the degree programs. Students whose progress is poor will receive letters of concern or warnings from the Graduate Committee. When poor progress continues, the Graduate Committee may recommend to the Department Head that the student's financial assistance be terminated. In extreme cases a recommendation may be made to remove the student from the department of Statistics graduate programs.

## **SUPPORT OF PH.D. STUDENT TRAVEL**

Subject to the availability of funds, the department will contribute to the support of travel to research conferences and workshops by Ph.D. students who are supported in the department. Expenses eligible for reimbursement include those for actual travel (e.g., air fare, shuttle to airport and hotels) but not for food. Factors to be considered will include the following:

1. Will the student give a presentation?
2. Has the student applied for other available funds? It will generally be required that students apply elsewhere when possible. Most meetings have some funds available for the support of graduate student attendance. (For the Joint Statistical Meetings, it may come from individual Sections.)
3. Seniority. Students who have already made substantial progress in research will be more likely to receive support.

It is expected that advisors with grant or start-up money will contribute toward the travel expenses of their students. However, in order not to excessively “penalize” advisors with grant or start-up money, the department will match the travel support from the grant or start-up funds when this is requested (subject to availability of funds).

## **GRADUATE STUDENT ORGANIZATION (GSO)**

The department encourages an active graduate student organization. Information about GSO may be obtained by contacting the current president, on the web page: [http://www.stat.purdue.edu/student\\_organizations/gso/index.php](http://www.stat.purdue.edu/student_organizations/gso/index.php)

## **GRADUATE STUDENT AWARDS**

Each year the department presents awards to outstanding graduating students. Usually, one student is selected for each award, although an award may be shared or omitted in some years.

*The I. W. Burr Award*, named for a distinguished emeritus professor, is given to a Ph.D. student. The Burr award recognizes promise of making a contribution to the profession and excellence in teaching or consulting.

*The L. J. Cote Excellence in Statistics Award* is given to a student in one of the M.S. programs. This award recognizes excellence in the skills required of a practicing statistician: technical knowledge, communication, and consulting.

*The Outstanding Classroom Teaching Award* recognizes excellence in teaching of statistics by a teaching assistant in the department.

*The W. J. Studden Publication Award* recognizes a Ph.D. student that has at least one paper accepted for publication in a mathematical statistics journal based on work done at Purdue.

## **STUDENT FINANCIAL SUPPORT**

### **PH.D. GRADUATE STUDENT FUNDING**

Departmental financial support (i.e., fellowship and/or TAship) for a PhD student will be offered for the first 4 years, contingent upon satisfactory progress. The maximum number of years of departmental financial support is 7, including fellowships and TAships. There will be no financial support from the department after 7 years. However, a faculty member may choose to fund a student with RAships beyond 7 years. Between 4 to 7 years in the program, the student may be funded, subject to his/her academic progress, TA job performance, and budget constraints etc.

For a student who takes a job offer before completing the thesis, he/she must finish the remaining thesis work within two years. The department may offer a gracious six-month extension for the third year for the person to return to campus as a full-time student to complete the thesis.

**Students supported by the department are required to be present one week prior to the start of fall and spring classes and through the end of finals week unless permission to do otherwise is given by the Director of Graduate Programs in consultation with the Department Head.**

All International students who have a teaching assistantship are required to show English proficiency. Those students who do not show English proficiency (see the Oral English Proficiency section below) will in general be supported at a lower pay level.

An assistantship may be offered for one semester only and not on a continuing basis. This arrangement will be made clear in writing. Assessment of performance in teaching and grading duties is based in part on course-instructor evaluations. Performance is taken into account when assigning duties.

Assistantship duties for most beginning students are teaching or grading Statistics courses. Some advanced students are assistants with the Statistical Consulting Service or have consulting duties in other departments. Some advanced students are supported on research grants by individual professors.

Summer internships are encouraged for both M.S. and Ph.D. students. Internships must be registered as credits for all international students. Summer teaching positions are usually available for students who do not have internships or research assistantships but are not guaranteed. Priority is given to students who have an excellent past record of performance of assigned duties and scholastic performance. A student who has held a teaching assistantship in the spring semester, and who will be continuing as a teaching assistant in the fall, may enroll for full time study in the Summer Session with reduced tuition even without an assistantship.

## **ORAL ENGLISH PROFICIENCY**

The Oral English Proficiency Test, or OEPT, is designed to measure the oral English proficiency of Purdue University graduate students whose first language is not English. OEPT scores are used by all departments at Purdue University in determining the eligibility of graduate students for teaching duties involving direct classroom instruction of undergraduate students. All international teaching assistants whose first language is not English must be “certified” for oral English proficiency.

Any student whose first language is not English may be certified by the following test scores:

- A score of at least 27 on the speaking portion of the TOEFL iBT
- A score of 8.0 or higher on the IELTS speaking section
- A score of 50 or higher on Purdue’s Oral English Proficiency Test (OEPT)
- Certification of oral English proficiency through the ENGL 620 course

The Oral English Proficiency Program is responsible for certifying students who do not meet the above test score cut-offs. Students who fail the OEPT are eligible to be enrolled, by recommendation of their departments, in the English 620 course, classroom communication in ESL for international teaching assistants. This course is designed, taught, and administered by OEPP staff. Most students who take ENGL 620 are certified after one semester of the course, but some are required to repeat the course a second, or in some cases a third time before being certified for oral English proficiency.



If a student does not meet the required score for certification, the preferred option for those students who score 40 or 45 is for the student to be enrolled in ENGL 62000, "Classroom Communication for International Teaching Assistants." Students completing the course consistently report improvements in their spoken English that positively affect their work as teaching assistants, their graduate studies and professional development.

Students who score 35 may retest after six months. Students who fail to either pass the OEPT or English 620 will not be allowed to instruct in any capacity.

### **GRADUATE ASSISTANT TAX INFORMATION**

Graduate assistants are considered graduate staff of Purdue, and the money paid to them (salary) is taxable income reported by Purdue to the IRS (Internal Revenue Service). The salary earned by graduate assistants is subject to withholding for income tax, Social Security tax, and Medicare, and is reported on the W-2 at year end.

### **GRADUATE STUDENT ASSISTANTSHIP INSURANCE**

Graduate research and teaching assistants with appointments of 50% or greater are covered under Purdue's insurance program for graduate student staff. Each graduate staff member pays a specified fee per year via payroll deduction, and the University covers the remaining cost. A graduate staff member has the option of insuring his or her spouse and dependents under the same plan. The graduate staff member is responsible for 100% of these premiums. Eligible graduate staff that have medical coverage through other sources can choose not to be covered. Graduate students not covered by the graduate staff policy can obtain student coverage. Workers' compensation covers accidents occurring while on the job in the lab. All international students are required to obtain health insurance. Information is provided by the Bursar's Office at registration time.

### **SUMMER LEAVE OR ABSENCE FROM CAMPUS**

Students in the first year of Ross assistantships, or the first and second year of the Andrews assistantships, are paid on a yearly basis and do not normally receive vacation time. However, if a student should decide to take a leave during the summer the following procedures will need to occur.

- 1) The major professor and the department head will need to approve of the time period the student will be gone.
- 2) Upon approval of the major professor, the student will need to compose a letter to the Graduate School Fellowships Office when to begin and end the assistantship for the leave. The major professor will need to sign the letter.
- 3) Make two extra copies of the letter and give to the Graduate Coordinator, Stats Business Office, and the Fellowship Office.

### **PAYCHECKS**

All staff are paid through direct deposit. Paydays are biweekly. Pay schedules are different for a teaching assistant on an academic year appointment and research assistants and fellowships on a

fiscal year appointment. Students may check online or with the business office for specific pay dates.

## MISCELLANEOUS INFORMATION

### CHANGE OF NAME AND CONTACT INFORMATION

The Office of the Registrar and our Graduate office should be informed of any address change. We also request the name, address, and telephone number, if possible, of a parent (preferably), or other relative, friend, attorney, or bank who will always know your whereabouts and will forward mail in the years after leaving our program.

If a student is married after being admitted to Purdue, and wishes to change their name on Purdue records, the marriage certificate should be presented as evidence to the Office of the Bursar in Hovde Hall. Our Graduate Office should also be informed.

### PARKING PERMITS

Permits are necessary for all students owning and operating automobiles on campus. Permits may be obtained from Parking Facilities Office <http://www.purdue.edu/parking>

### KEYS

Please see the Building Deputy to pick up your key for your office. (If you want access to departmental computer labs after 5pm or on weekends, please also ask for a key to labs Math 543 or Haas 110.)

### MAIL

Mailboxes are available for graduate students. They are located in Math 533. Mailboxes in Math 533 are accessible (Monday – Friday) from 8:00 a.m. to 5:00 p.m. It is important that the mailbox be checked regularly especially early in the semester.

### E-MAIL

All students receive email accounts through Information Technology at Purdue (ITAP). **Students should check their e-mail messages twice a day for important messages from the Department.**

## DEPARTMENT OF STATISTICS CONTACT INFORMATION

**Head  
Administrative Assistant  
Graduate Chair  
Graduate Coordinator**

**Dennis Lin  
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Jun Xie  
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