



Cornell Bowers C:IS  
**Statistics and Data Science**

**Field Manual, Graduate Field of Statistics**

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## **Introduction**

Graduate fields at Cornell are voluntary groupings of graduate faculty whose academic interests intersect and wish to exercise shared responsibility for an area of inquiry. They may also exercise shared responsibility for the admission, education, and financial support of graduate students. These fields of study are independent from colleges and department units; they often contain graduate faculty from across several colleges and departments. While they both fall under the Graduate Field of Statistics, the Statistics PhD Program can be thought of as a separate and distinct entity from the Applied Statistics MPS Program.

The administrative responsibilities for the Statistics PhD program are overseen by the Director of Graduate Studies (DGS) James Booth, while the administrative responsibilities for the Applied Statistics MPS Program are overseen by the Program Director as well as Senior Associate Director, Xiaolong Yang. The DGS and Program Directors are all supported by the Graduate Field Coordinator, Allen Ward and any of them may be contacted for general inquiries about each of their respective academic programs.

## **Registration Requirements**

The Graduate School has registration requirements that are measured by semesters of full-time study. Six semesters of full-time registration are required for students to have their B-Exam, with at least two of those semesters taking place after their A-Exam. A non-thesis master's degree may be awarded to students during their A-Exam if they have been registered in full time status for at least four semesters.

A student is considered as being enrolled in full-time study (including In Absentia) if they are registered and enrolled in courses or engaged in thesis/dissertation work. Students are not required to be registered and engaged in these activities during the summer months. However, if they are being supported on an assistantship or receiving support that requires it, then students will be required to be registered and engaged in full-time study during the summer months. Students who wish to utilize campus facilities will also need to be registered for the summer. Summer registration is as simple as enrolling in a graduate research course GRAD 9016; the specific section does not matter and there is no tuition cost.

## **Special Committees for Research Degrees**

All doctoral students must have at least three members on their special committee, which is led by a chairperson who represents the student's major subject concentration. The special committee chairperson will supervise a student's thesis/dissertation and fulfill the role of advisor to students. The remaining two special committee members will represent the student's minor concentrations while offering advice and guidance as needed. PhD students will be required to select major and minor concentrations at the time that they nominate committee members in Student Center, and for each major and minor subject they will choose a concentration, which is a specialized area within the major/minor subject. The special committee member who represents an approved subject or concentration will determine specific requirements for the student.

At least two members of the special committee must be general members of the graduate faculty, that is, not divisional or minor members. Under the leadership of the committee chair, the special committee has primary responsibility for developing a student's independence in scholarship. The milestones that are set by the Graduate School indicate that PhD students must nominate a Special Committee Chairperson by the third week of their first semester and have a fully formed Special Committee by the end of their third semester. It is not always realistic for Statistics PhD students to nominate a Special Committee chair at this point, so the DGS may act as a temporary chair until students can formally nominate a chairperson. Students may select other members of their special committee from any other member of the graduate faculty at Cornell, though the committee chair and DGS must endorse the proposed committee membership.

Major subject concentrations in the Graduate Field of Statistics can be found at the [Graduate School's website](#):

- Biometry
- Decision theory
- Econometrics
- Engineering statistics
- Experimental design
- Mathematical statistics
- Probability
- Sampling
- Social statistics
- Statistical computing
- Stochastic processes

## Coursework and Examinations

Statistics PhD students must complete the required coursework for the program in addition to any and all coursework that is required by their special committee. If students have already completed some of the required coursework elsewhere then they will not need to repeat those courses, though this should be discussed with the DGS and/or special committee chair. The current list of required coursework includes:

- STSCI 7170 Linear Models (Fall, Year 1)
- MATH 6710 Probability (Fall, Year 1)
- STSCI 7180 Generalized Linear Models (Spring, Year 1 or 2)
- STSCI 6520 Statistical Computing (Spring, Year 1 or 2)
- MATH 6720 Probability II or STSCI 6750 Probability II for Statisticians (Spring, Year 1)
- STSCI 6730 Theory of Statistics (Spring, Year 1)
- MATH 6740 Asymptotic Statistics (Fall, Year 2)
- BTRY 7950 Statistical Consulting (Fall, Year 2 or 3)
- BTRY 7951 Advanced Statistical Consulting (Spring, Year 2 or 3)

At the end of their first year, students are assessed and if appropriate, a written qualifying exam (Q-Exam) may be required. Students are also required to take 4-5 elective courses approved by their special committee chair. These courses are typically taken in the 2nd, 3rd and 4th years of the program. If a Q-Exam is required then the student must also enroll in 4-5 additional elective courses. These courses which will need to be approved by the special committee chairperson.

There are two primary examinations for Statistics PhD students: the Admission to Candidacy Exam, or A-Exam, and the Final Examination for the Doctor of Philosophy Degree, or B-Exam. PhD students are admitted to doctoral candidacy after passing a comprehensive examination administered by the student's special committee. The passing of this A-Exam certifies that the student is eligible to present a dissertation to the graduate faculty. The A-Exam may be taken after two semesters of registration and it is the expectation of the Graduate School that all doctoral students must attempt the A-Exam before beginning their 4<sup>th</sup> year in the program. A non-thesis MS degree in Statistics may be awarded to students who have passed their A-Exam on the recommendation of the special committee. However, this option is not available for students pursuing an MS degree in [Computer Science](#).

A doctoral candidate takes their B-Exam upon completion of all requirements for the degree, but no earlier than one month before completion of the minimum registration requirement. A minimum of two semesters of registration must be completed between passing the A-Exam and scheduling the B-Exam.

For both the A-Exam and B-Exam, students are required to notify the Field of Statistics of the exam *no later* than one week prior to the day of the exam. This notification will require a title and abstract in addition to a date, time, and location of the exam. Students will submit these schedule requests electronically via the Graduate School's forms found at <https://gradschool.cornell.edu/forms/>

## **Student Funding**

All Statistics PhD students are guaranteed 5 years of funding through teaching or research assistantships as long as they maintain good academic standing and make sufficient academic/research progress. Some students may also be funded through a fellowship, either external (through Apple, Google i.e.) or through Cornell. No matter the funding source, financial support will cover expenses for tuition and health insurance in addition to providing stipends. For students who are funded through assistantships, stipends are determined by the Graduate School, while stipends funded through external fellowships are determined by the awarding institution.

## **Statistics Seminars**

It is the expectation of the Graduate Field of Statistics that Statistics PhD students regularly attend weekly seminars when they are being held.

## Malott Hall vs Comstock Hall

Malott Hall is the building where most of the Statistics PhD students have their offices, either on the 1<sup>st</sup> floor near the Mathematics students or on the 3<sup>rd</sup> floor in the 301 suite. The 3<sup>rd</sup> floor is where you can find Allen Ward's office as well as the open area study lounge. The Comstock Hall suite has numerous faculty offices in addition to a handful for PhD offices and a seminar room with a small lecture room. Both the Malott and Comstock suites have small kitchens with refrigerators and coffee/tea as well as printers that can fax and scan as needed. In order to utilize these machines you will need to get plugged in via ITSG. All IT requests will need to go through [itcoecis-help@cornell.edu](mailto:itcoecis-help@cornell.edu).

## Parking

All vehicles on campus must be registered with the [University Transportation Services](#) at 116 Maple Avenue. Parking on campus is limited and expensive. Check with the Transportation Services at 607-255-4600 to learn about what other options are available to you.

## Statistics Graduate Society (SGS)

SGS is a PhD student-run organization that aims to make the graduate student life more enjoyable and provide a rich, cohesive educational experience. The group holds regular speaker series and discussion groups in addition to networking and social events. See current information and board members at their web page at <https://stat.cornell.edu/about-us/sgs>

## Student Progress Review

The Graduate School requires that all doctoral students in their second year and beyond complete a yearly Student Progress Review (SPR). The SPR is designed to foster constructive communications between students and graduate faculty regarding their academic and research progress. The SPR is required for all students in their second year or beyond irrespective of their graduation timeline.

## Cornell Health & Emergency Services

The University offers medical and mental health services for all students. Anyone who needs to may initiate care by going to <https://health.cornell.edu/> or by going to 110 Ho Plaza. If there is a concern that you feel needs to be addressed for you or for someone else you may call 607-255-5155. Additionally, the [Cornell Police](#) may be reached at 607-255-1111 for issues that may need immediate attention. For instances when Cornell Health is not open, there are a number of options to consider:

- [Cayuga Medical Center \(CMC\)](#)  
*Ithaca hospital & emergency department*  
[101 Dates Drive, Ithaca](#) – on Rt. 96 on the west side of Cayuga Lake  
Open 24/7  
[607-274-4411](#)
- [Urgent Care at Ithaca](#) (**\*Temporarily closed beginning 2/15/21 due the COVID-19 pandemic\***)  
*CMC's non-emergency walk-in clinic*  
[10 Arrowwood Drive, Ithaca](#) – off of Warren Road, 2 miles north of Cornell  
Open every day, 7:00 am – 10:00 pm  
[607-274-4150](#)  
\*Optional: [pre-register for your visit](#)
- [WellNow Urgent Care](#) (formerly called Five Star)  
*Non-emergency walk-in clinic*  
[740 South Meadow Street, Ithaca](#) – on Rt. 13, south of Wegmans  
Open every day, 8:00 am – 8:00 pm  
[607-319-4563](#)  
\*Optional: [reserve your spot](#)