

STATISTICS, PHD

for the degree of Doctor of Philosophy in Statistics

Graduate Degree Programs in Statistics

- Statistics, MS (<http://catalog.illinois.edu/graduate/las/statistics-ms/>)
 - concentrations:
 - Analytics (<http://catalog.illinois.edu/graduate/las/statistics-ms/analytics/>)
 - Applied (<http://catalog.illinois.edu/graduate/las/statistics-ms/applied/>)
- Statistics, PhD (p. 1)
 - optional concentrations for the PhD:
 - Computational Science & Engineering (<http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/>)
 - Data Science & Engineering (<http://catalog.illinois.edu/graduate/engineering/concentration/data-science-engineering/>)
- Graduate Minor in Statistics (<http://catalog.illinois.edu/graduate/las/minors/statistics/>)

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For additional details and requirements refer to the department's Graduate Programs (<http://www.stat.illinois.edu/students/graduates.shtml/>) and the Graduate College Handbook (<http://www.grad.illinois.edu/gradhandbook/>).

Entering with an approved Baccalaureate degree

Code	Title	Hours
PhD applied regression courses:		
STAT 527	Advanced Regression Analysis	4
STAT 528	Advanced Regression Analysis II	4
PhD theory core courses:		
STAT 511	Advanced Mathematical Statistics	4
STAT 553	Probability and Measure I	4
STAT 575	Large Sample Theory	4
Practicum course- Select one:		2-4
STAT 427	Statistical Consulting	
STAT 593	STAT Internship	
STAT 595	Preparing Future Faculty	
Computing-related course- Select one:		4
STAT 525	Computational Statistics	
STAT 542	Statistical Learning	
Approved substitutions for Computing: IE 521, IE 534, CS 573, CS 574, CS 583.		
Stochastic processes and time series courses- Select one:		4
STAT 533	Advanced Stochastic Processes (Advanced Stochastic Processes)	
STAT 554	Probability and Measure II	
STAT 555/ MATH 564	Applied Stochastic Processes	
STAT 556	Advanced Time Series Analysis	

STAT 576	Empirical Process Theory and Weak Convergence	
Select at least 5 elective courses with at least three 500 level courses, not selected above or from a list of electives maintained by the department.		20
Thesis and individual study courses:		0-44
STAT 590	Individual Study and Research (0-16 hours per term)	
STAT 599	Thesis Research (0-8 hours per term)	
Total Hours		96

Other Requirements

Requirement	Description
Prerequisite	MATH 447 - Real Variables (*Waived if a course at an equivalent level has been taken at another institution and a grade of B or above is achieved)
Other requirements may overlap	
Required and elective course credits at UIUC	At least 52 hours
Thesis research and individual study courses (min-max applied toward degree)	0-44
Total number of credits required	96 (at least 64 residency credits)

Entering with an approved Master's degree

Code	Title	Hours
PhD theory core course:		
STAT 553	Probability and Measure I	4
Practicum course- Select one:		2-4
STAT 427	Statistical Consulting	
STAT 593	STAT Internship	
STAT 595	Preparing Future Faculty	
Computing-related course- Select one:		4
STAT 525	Computational Statistics	
STAT 542	Statistical Learning	
Approved substitutions for Computing: IE 521, IE 534, CS 573, CS 574, CS 583.		
Stochastic processes and time series courses- Select one:		
STAT 556	Advanced Time Series Analysis	
STAT 555	Applied Stochastic Processes	
STAT 533	Advanced Stochastic Processes	
STAT 554	Probability and Measure II	
STAT 576	Empirical Process Theory and Weak Convergence	
Select at least 5 elective courses with at least three 500 level courses, not selected above or from a list of electives maintained by the department.		20
Thesis and Individual study courses:		0-28
STAT 590	Individual Study and Research (0-16 hours per term)	
STAT 599	Thesis Research (0-8 hours per term)	
Total Hours		64

Other Requirements

Requirement	Description
Other requirements may overlap	
Masters Degree Required for Admission to PhD?	No, but Masters level requirements must be met (32 additional hours min)
For a student who has approved MS degree in Statistics or related fields from peer institutions, the total number of credits required is 64 (at least 64 residency credits). The MS degree needs to be approved by the PhD committee by Oct 1st of the first year of enrollment.	
STAT 527/STAT 528/STAT 511/STAT	can be waived for students who have approved MS degrees from peer institutions AND passed our qualifying exam
At least 36 required and elective course credits at UIUC (including satisfying the requirements on PhD applied regression, theory core, practicum, computing-related and stochastic process and time series courses, subject to waiver)	
Minimum 500-level courses required	24
Qualifying Exam Required	Yes
Preliminary Exam Required	Yes
Final Exam/Dissertation Defense Required	Yes
Thesis research and individual study courses (min-max applied toward degree)	0-28 hours
Dissertation Deposit Required	Yes
Minimum GPA:	3.0

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Statistics Ph.D. students will...

1. Have a solid foundation in Statistical Theory and Methodology;
2. Have a holistic understanding of data collection, management, processing, analysis and interpretation. Being proficient in the use of statistical software and writing statistical code;
3. Have experience in one or more application areas and work as a part of a collaborative team in analyzing real data and solving real-world problems;
4. Be able to conduct research either independently or collaboratively in a subarea of statistics and data science;
5. Be able to teach some elementary statistical courses independently.

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Statistics Department

Department Chair: Bo Li (<https://stat.illinois.edu/directory/profile/libo/>)
 Associate Department Chair: Jeff Douglas (<https://stat.illinois.edu/directory/profile/jeffdoug/>)

PhD Program Director: Xiaofeng Shao (<https://stat.illinois.edu/directory/profile/xshao/>)

Department Contact: Aaron Thompson

Graduate Contact: Joseph Zarnsy (stat-grad@illinois.edu)

Statistics Department website (<http://www.stat.illinois.edu/>)

Computing Applications Building, 605 E Springfield Ave, Champaign, IL 61820

(217) 333-2167

Statistics email (stat-grad@illinois.edu)

College of Liberal Arts & Sciences

College of Liberal Arts & Sciences website (<https://las.illinois.edu/>)

Admissions

Statistics Department Admissions Info & Requirements (<https://stat.illinois.edu/admissions/prospective-graduate-students/>)

Graduate College Admissions & Requirements (<https://grad.illinois.edu/admissions/apply/>)