# Statistics, PhD

**for the degree of Doctor of Philosophy in Statistics**

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**department website:** [http://www.stat.illinois.edu/](http://www.stat.illinois.edu/)  
**college website:** [https://las.illinois.edu/](https://las.illinois.edu/)  
**overview of graduate college admissions & requirements:** Graduate Admissions ([https://grad.illinois.edu/admissions/apply/](https://grad.illinois.edu/admissions/apply/))  
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Specific program info here

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## Graduate Degree Programs in Statistics

Statistics, MS ([http://catalog.illinois.edu/graduate/las/statistics-ms/](http://catalog.illinois.edu/graduate/las/statistics-ms/))  
- **concentrations:**  
  - Analytics ([http://catalog.illinois.edu/graduate/las/statistics-ms/analytics/](http://catalog.illinois.edu/graduate/las/statistics-ms/analytics/))  
  - Applied ([http://catalog.illinois.edu/graduate/las/statistics-ms/applied/](http://catalog.illinois.edu/graduate/las/statistics-ms/applied/))  
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- **concentration:**  
  - Computational Science & Engineering ([http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/](http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/))  
Graduate Minor in Statistics ([http://catalog.illinois.edu/graduate/las/minors/statistics/](http://catalog.illinois.edu/graduate/las/minors/statistics/))

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### Admission

Graduate College admission requirements apply. Students are expected to have a strong undergraduate mathematics background, but need not have an undergraduate statistics or mathematics degree. Students may be admitted with deficiencies, which are to be removed during the first year of graduate work. A minimum Test of English as a Foreign Language (TOEFL) score of 590 for the paper-based test or 243 for the computer-based test is required for students whose native language is not English. The Graduate Record Examination (GRE) is required. The department offers Ph.D. admissions for the fall only.

### Graduate Teaching Experience

Although teaching is not a general Graduate College requirement, experience in teaching is considered an important part of the graduate experience in the Ph.D. program.

### Financial Aid

Financial aid is available primarily in the form of teaching assistantships, research assistantships, and fellowships. For further information write to the Graduate Admissions Committee, Department of Statistics.

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## Statistics, PhD

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>MS Equivalent Core</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAT 424</td>
<td>Analysis of Variance</td>
<td>4</td>
</tr>
<tr>
<td>STAT 425</td>
<td>Applied Regression and Design</td>
<td>4</td>
</tr>
<tr>
<td>STAT 426</td>
<td>Sampling and Categorical Data</td>
<td>4</td>
</tr>
<tr>
<td>STAT 510</td>
<td>Mathematical Statistics I</td>
<td>4</td>
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</tbody>
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### Theory Core Courses

- STAT 511 Mathematical Statistics II  
- STAT 553 Probability and Measure I  
- STAT 575 Large Sample Theory

### Select one Practicum Course:

- STAT 427 Statistical Consulting  
- STAT 593 STAT Internship  
- STAT 595 Preparing Future Faculty

### Select one Computational Theory and Methods Course:

- STAT 428 Statistical Computing  
- STAT 525 Computational Statistics  
- STAT 530 Bioinformatics  
- STAT 542 Statistical Learning

### Select one of the Stochastic Processes and Time Series Courses:

- STAT 429 Time Series Analysis  
- STAT 433 Stochastic Processes (Stochastic Processes)  
- STAT 554 Probability and Measure II  
- STAT 555 Applied Stochastic Processes

### Select at least 3 elective courses from a list within the department. At least two courses must be at the 500-level.

- Thesis and Individual Study Courses  
  - 0-32  
- STAT 590 Individual Study and Research  
  - 0 to 8  
- STAT 599 Thesis Research (0 min applied toward degree)  
  - 0

**Total Hours:** 64

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## Other Requirements

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