

# DOCTOR OF PHILOSOPHY (PHD) DEGREE IN THE FIELD OF STATISTICS

## Program Learning Outcomes for the MA and PhD Degrees in the field of Statistics

Upon completing the MA and PhD degrees in the field of Statistics, students will be able to:

1. Master fundamental theory in probability and statistics.
2. Become familiar with a broad range of statistical methods for applications.
3. Become proficient at statistical computing.
4. Develop effective communication skills as a professional statistician.
5. Develop the skills to do independent research.

## Requirements for the MA and PhD Degrees in the field of Statistics

### MA Degree Program

The MA degree is a non-thesis master's degree. For general university requirements, please see [Non-Thesis Master's Degrees](https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-non-thesis-masters-degrees/) (<https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-non-thesis-masters-degrees/>). For additional requirements, regulations, and procedures for all graduate programs, please see [All Graduate Students](https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/) (<https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/>). Students awarded the MA degree in the field of Statistics should be aware that:

- The MA degree awarded in the field of Statistics is a non-thesis master's degree.
- The MA degree in the field of Statistics requires 30 credit hours of approved coursework as well as one of the following:
  - a. the completion of an original thesis and defense in a public oral examination; or
  - b. satisfactory performance on the PhD qualifying examinations, and the completion of a major project.
- A candidacy MA degree is awarded to Statistics PhD students through option (2) where the major project corresponds to the doctoral thesis proposal.
- An MA degree is available to PhD students in the Departments of Economics or Political Science through option (1) where the original doctoral thesis and defense is related to the MA in the field of Statistics.

Students pursuing the PhD degree in the field of Statistics, or a PhD degree in the field of Economics, have the opportunity to also earn a Master of Arts (MA) degree in either the fields of Statistics or Economics, respectively. Additionally, students pursuing the PhD degree in the field of Political Science have the opportunity to also earn a Master of Arts (MA) degree in the field of Statistics. For additional information, see the [Opportunities](#) (p. 2) tab.

The requirements listed in the General Announcements (GA) satisfy the minimum requirements for this degree program. In certain instances, courses (or requirements) not officially listed here may

be substituted upon approval of the program's academic advisor, or where applicable, the department or program's Director of Graduate Studies. Course substitutions or any exceptions to the stated official curricular requirements must be approved by the [Office of Graduate and Postdoctoral Studies](https://graduate.rice.edu/) (<https://graduate.rice.edu/>). Students and their academic advisors should identify and clearly document the courses to be taken.

### Summary

Code	Title	Credit Hours
	Total Credit Hours Required for the MA Degree in the field of Statistics	30

## Requirements for the PhD Degree in the field of Statistics

### PhD Degree Program

For general university requirements, please see [Doctoral Degrees](https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-doctoral-degrees/) (<https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-doctoral-degrees/>). For additional requirements, regulations, and procedures for all graduate programs, please see [All Graduate Students](https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/) (<https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/>). Students pursuing the PhD degree in the field of Statistics must complete:

- A minimum of 90 credit hours of approved coursework beyond the bachelor's degree and a minimum of 60 hours beyond a master's degree.
- A satisfactory performance on a required qualifying examination and an original thesis with a public oral defense.

All Statistics graduate students are assigned a limited amount of teaching or other departmental service as part of their graduate education. The assignment usually entails approximately 10 hours per week, averaged over the semester. Students completing the PhD degree in 4 years can expect no more than 4 semesters of service.

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### Summary

Code	Title	Credit Hours
	Total Credit Hours Required for the PhD Degree in the field of Statistics	90

## Policies for the PhD Degree in the field of Statistics

### Department of Statistics Graduate Program Handbook

The General Announcements (GA) is the official Rice curriculum. As an additional resource for students, the department of Statistics publishes

a graduate program handbook, which can be found here: [https://gradhandbooks.rice.edu/2023\\_24/Statistics\\_Graduate\\_Handbook.pdf](https://gradhandbooks.rice.edu/2023_24/Statistics_Graduate_Handbook.pdf)

## Admission

**Preparation for PhD Program:** Prospective students generally have single and multivariable calculus, linear algebra, and calculus-based probability and statistics. The general Graduate Record Exam (GRE) is currently optional, but strongly recommended. [Financial support is available for qualified doctoral student applicants.](#)

## Transfer Credit

For Rice University's policy regarding transfer credit, see [Transfer Credit \(https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/#transfer\)](https://ga.rice.edu/graduate-students/academic-policies-procedures/regulations-procedures-all-degrees/#transfer). Some departments and programs have additional restrictions on transfer credit. Students are encouraged to meet with their academic program's advisor when considering transfer credit possibilities.

## Departmental Transfer Credit Guidelines

Students pursuing the PhD degree in the field of Statistics should be aware of the following departmental transfer credit guidelines:

- Requests for transfer credit will be considered by the program director on an individual case-by-case basis.

## Additional Information

For additional information, please see the Statistics website: <https://statistics.rice.edu/>

# Opportunities for the PhD Degree in the field of Statistics

## Additional Master's Degrees Options

Students pursuing the PhD degree in the field of Statistics, or a PhD degree in the field of Economics, have the opportunity to also earn a Master of Arts (MA) degree in either the fields of Statistics or Economics, respectively. Additionally, students pursuing the PhD degree in the field of Political Science have the opportunity to also earn a Master of Arts (MA) degree in the field of Statistics. For additional information, see the following General Announcements department pages:

- the [Requirements](#) (p. 1) tab on the PhD Degree in the field of **Statistics** page,
- the [Opportunities \(https://ga.rice.edu/programs-study/departments-programs/social-sciences/economics/economics-concentration-quantitative-phd/#opportunities\)](https://ga.rice.edu/programs-study/departments-programs/social-sciences/economics/economics-concentration-quantitative-phd/#opportunities) tab on the PhD Degree in the field of **Economics** page,
- the [Opportunities \(https://ga.rice.edu/programs-study/departments-programs/social-sciences/political-science/political-science-phd/#opportunities\)](https://ga.rice.edu/programs-study/departments-programs/social-sciences/political-science/political-science-phd/#opportunities) tab on the PhD Degree in the field of **Political Science** page.

## Additional Information

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