

DOCTOR OF PHILOSOPHY (PHD) DEGREE IN THE FIELD OF ECONOMICS AND A MAJOR CONCENTRATION IN ECONOMETRICS AND QUANTITATIVE ECONOMICS

Program Learning Outcomes for the MA and PhD Degrees in the field of Economics and a Major Concentration in Econometrics and Quantitative Economics

Upon completing the MA and PhD degrees in the field of Economics and a major concentration in Econometrics and Quantitative Economics, students will be able to:

1. Carry out independent research in economics and finance, using mathematical, statistical, econometric, and computational tools.
2. Write an independent and original thesis that is of sufficient quality to merit publication in a top economics or finance journal.
3. Conduct a focused review of the literature and develop a research design to carry out independent research.
4. Defend their research design and modeling choices by presenting their paper in a seminar environment.

Requirements for the MA and PhD Degrees in the field of Economics MA Degree Program

The MA degree is a non-thesis master's degree. For general university requirements for non-thesis masters degrees, 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/). Although students are not normally admitted to study for an MA, graduate students may earn the MA along the way to the PhD. In order to obtain the MA Degree in the field of Economics, students must:

- Pass the first year core courses with a grade point average of 2.67 or better.
- Complete 6 field courses with passing grades.
- Earn a satisfactory grade in ECON 700 in the last two semesters before graduation.

Students pursuing the PhD degree in the field of Economics, or a PhD degree in the field of Statistics, have the opportunity to also earn a Master of Arts (MA) degree in either the fields of Statistics or

Economics, respectively. For additional information, see the [Opportunities \(p. 3\)](#) 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 Economics		30

Requirements for the PhD Degree in the field of Economics 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/). Candidates for the PhD usually spend from 2 to 2-1/2 years in full-time coursework and at least 1 year writing the thesis; 5 years is a reasonable goal for completing the program. For the PhD degree in the field of Economics, students must:

- Complete the online *Statistics* and *Mathematics* camps (hosted by the Economics department and Rice Online Learning) before starting their first year courses.
- Perform satisfactorily on the required coursework.
- Complete 6 core courses and 1 elective course (first year of study).
- Complete ECON 504 *Computational Economics* (second year of study).
- Complete field coursework from one major field and one minor field.
- Complete ECON 800 *Graduate Research* throughout the second year of study (and all subsequent years).
- Complete ECON 593 *Workshop in Microeconomics* and ECON 594 *Workshop in Economics II* (in the second and third years of study).
- Complete and present a third-year paper (3YP) by the end of the third year of study.
- Defend a doctoral thesis proposal no later than the spring semester of the fourth year of study.
- Complete and defend the doctoral thesis (with at least two chapters).
- Complete a minimum residency enrollment of four years of full-time graduate study at Rice University.

When applicable, students working as a teaching assistant (TA) for the department must enroll in ECON 700 *Departmental Service Course* during that academic year

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Summary

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

Proposed Plan-of-Study

The following plan-of-study represents the sequence in which it is recommended that students pursuing the PhD in the field of Economics complete the requirements for the degree.

Code	Title	Credit Hours
First Year of Study		
Complete the online Statistics and Mathematics camps (hosted by the Economics department and Rice Online Learning) before starting the first-year courses (i.e., in the summer before the first year begins).		
Complete all coursework in the first-year core curriculum.		
Complete one elective (supplemental) course, approved by the Director of Graduate Studies (DGS).		
Second Year of Study		
ECON 504	COMPUTATIONAL ECONOMICS *	3
ECON 593	WORKSHOP IN MICROECONOMICS	1
ECON 594	WORKSHOP IN ECONOMICS II	1
ECON 800	GRADUATE RESEARCH (under the supervision of a second-year faculty mentor)	1-12
Work on second-year research project(s) under faculty guidance.		
Doctoral-level (PhD) field coursework.		
Choose an advisor for the third-year paper (3YP) and submit 3YP proposal.		
Third Year of Study		
ECON 593	WORKSHOP IN MICROECONOMICS	1
ECON 594	WORKSHOP IN ECONOMICS II	1
ECON 800	GRADUATE RESEARCH (under the supervision of a third-year paper (3YP) advisor)	1-12
Complete 3YP and present it in a departmental seminar or conference.		
Select a doctoral thesis committee, including a committee chair (or thesis advisor) and at least two other faculty members.		
Fourth Year of Study		
ECON 596	RESEARCH SEMINAR (to receive feedback on doctoral thesis progress.) *	0.5

ECON 800	GRADUATE RESEARCH (under the supervision of the thesis advisor)	1-12
Defend doctoral thesis proposal through a public presentation (open to all faculty and graduate students).		
Fifth Year of Study (and subsequent years)		
ECON 596	RESEARCH SEMINAR (to receive feedback on doctoral thesis progress) *	0.5
ECON 800	GRADUATE RESEARCH (under the supervision of the thesis advisor)	1-12
Complete the doctoral thesis under the supervision of the thesis advisor.		
Petition for doctoral candidacy.		
Pass the oral examination in defense of the doctoral thesis.		
Total Credit Hours		Minimum of 90

Footnotes and Additional Information

* If either ECON 504 or ECON 596 is not available in a particular academic year, then students may take them in a subsequent academic year.

Requirements for the Major Concentration: Econometrics and Quantitative Economics

Econometrics and quantitative economics are integral parts of the curriculum for the graduate program in economics. All students earning MA or PhD Degrees in the field of Economics additionally earn the Major Concentration in Econometrics and Quantitative Economics.

Policies for the PhD Degree in the field of Economics

Department of Economics Graduate Program Handbook

The General Announcements (GA) is the official Rice curriculum. As an additional resource for students, the department of Economics publishes a graduate program handbook, which can be found here: https://gradhandbooks.rice.edu/2024_25/Economics_PhD_Graduate_Handbook.pdf.

Admission

Preparation for PhD Program: Applicants to the PhD program should have a strong background in mathematics and statistics. All applicants are required to take the Graduate Record Exam (GRE).

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. Requests for transfer credit must be approved for Rice equivalency by the appropriate academic department offering the Rice equivalent course (corresponding to the subject code of the course content) and by the Office of Graduate and Postdoctoral Studies (GPS). Students are encouraged to meet with their academic program's advisor when considering transfer credit possibilities.

Additional Information

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

Opportunities for the PhD Degree in the field of Economics

Additional Master's Degrees Options for the PhD Degree in the field of Economics and a Major Concentration in Econometrics and Quantitative Economics, or the PhD Degree in the field of Statistics

Students pursuing the PhD degree in the field of Economics and a Major Concentration in Econometrics and Quantitative Economics, or a PhD degree in the field of Statistics, have the opportunity to also earn a Master of Arts (MA) degree in either the fields of Economics or Statistics, respectively.

Requirements for the PhD Degree in the field of Economics and a Major Concentration in Econometrics and Quantitative Economics with a Master of Arts (MA) Degree in the field of Statistics

Students pursuing the PhD degree in the field of Economics and a Major Concentration in Econometrics and Quantitative Economics with a Master of Arts (MA) degree in the field of Statistics, with coordinated coursework, must complete:

Code	Title	Credit Hours
5 courses from departmental (ECON or BUSI) course offerings that have a strong statistics content.	^{1, 2}	15
5 courses from departmental (STAT) course offerings that are significantly different in content to courses in economics.	^{1, 3}	15
Qualifier in Econometrics at the comparable level of an MA degree in Statistics.		
A Major Project	⁴	
Total Credit Hours		30

Footnotes and Additional Information

- ¹ Courses that are jointly listed (cross-listed) between the 2 departments are counted towards the number of courses in the student's "home" department for the particular course.
- ² ECON 510 and ECON 511 must each be completed with a minimum letter grade of B (3.00 grade points) per course.
- ³ Must include Advanced Statistical Methods and Multivariate Statistics.
- ⁴ This may be directed by Economics faculty, but must have strong statistical content. The doctoral proposal in Economics can count toward this requirement.

Requirements for the PhD Degree in the field of Statistics with a Master of Arts (MA) Degree in the field of Economics

Students pursuing the PhD degree in the field of Statistics and the Master of Arts (MA) degree in the field of Economics, with coordinated coursework, must complete:

Code	Title	Credit Hours
Core Requirements		
Select 5 courses from departmental (ECON) course offerings comprising:		

ECON 501	MICROECONOMICS I	3
ECON 502	MACROECONOMICS	3
Select 1 from the following:		3
ECON 504 / STAT 604	COMPUTATIONAL ECONOMICS ¹	
ECON 505 / BUSI 521	FINANCIAL ECONOMICS I ¹	
ECON 508	MICROECONOMICS II	5
ECON 511 / STAT 611	ECONOMETRICS II ¹	3
Elective Requirements		
Select 5 courses from departmental (STAT) course offerings		15
Qualifier in Statistics at the comparable level of a field examination for the MA degree in the field of Economics.		
A Major Project ²		
Total Credit Hours		32

Footnotes and Additional Information

- ¹ Courses that are jointly listed (cross-listed) between the 2 departments are counted toward the number of courses in the student's "home" department of the particular course.
- ² This may be directed by Statistics faculty, but must have strong econometrics content. The doctoral proposal in Statistics can count toward this requirement.

Additional Information

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