



## PhD Program of Study

*Effective 2023, The Wharton Finance PhD Program is now STEM certified*

1. The PhD in Finance at Wharton consists of an **Eighteen-Course Requirement**:
  - Up to 4 courses per semester may be counted toward the overall requirement of 18 courses
  - 8 core courses completed by students in their first year consist of:
    - 2 microeconomic theory courses
    - 2 econometrics or statistics courses
    - 4 finance courses
2. The **Finance Qualification Examination** is given once each year:
  - All students enrolled in the program are required to take the qualification examination immediately following their first year in the program.
  - Qualification examination questions pertain to the material covered in the four finance courses taken during the first year (FNCE 9110, FNCE 9120, FNCE 9210 and FNCE 9240).
  - The Finance Qualification Examination is meant to test basic material and will be substantially related to these courses.

### Eighteen-Course Requirement

#### **Finance Core Courses:**

First Year Fall Semester:

1. **ECON 7100**: Micro Economic Theory I
2. **\*ECON 7300**: Econometrics I (Fundamentals) OR **STAT 5200**: Applied Econometrics I
3. **FNCE 9110**: Financial Economics
  - This course will cover basic theories in finance: Asset pricing and portfolio choice.
4. **FNCE 9240**: Intertemporal Macroeconomics and Finance
  - This course will cover topics at the intersection of finance and macro.

First Year Spring Semester:

1. **ECON 7110**: Microeconomic Theory II
2. **\*ECON 7310**: Econometrics II (Methods) or **STAT 5210**: Applied Econometrics II
3. **FNCE 9120**: Corporate Finance and Financial Institutions
  - This course will cover basic theories in corporate finance, financial institutions and financial markets.
4. **FNCE 9210**: Introduction to Empirical Methods in Finance
  - This course will cover empirical asset pricing and empirical corporate finance.

\* A one-year graduate level sequence in **ECON 7300/7310** or **STAT 5200/5210** is required. Both courses must be passed with a “B Minus” grade or better.

### **Finance Electives**

Each student is expected to develop proficiency in specialized areas in preparation for dissertation and research work. To this end, 4 or more finance electives are required from among the following courses over the second and third year:

1. **FNCE 9220:** Continuous-Time Financial Economics
2. **FNCE 9230:** Financial Economics under Imperfect Information
3. **FNCE 9250:** Topics in Asset Pricing
4. **FNCE 9260:** Empirical Methods in Corporate Finance
5. **FNCE 9320:** Topics in Corporate Finance
6. **FNCE 9330:** International Finance
7. **FNCE 9340:** Empirical Methods in Asset Pricing
8. **FNCE 9370:** Topics in Macro Finance

With 8 core course and 4 elective courses in finance, students will need 6 additional course credits to satisfy the course requirement for their PhD in Finance. Students can satisfy these additional course credits in the following ways:

1. Transfer Credits
2. Electives from Other Departments: Economics, Statistics, Accounting, Mathematics, etc.
3. Seminar Courses (FNCE 9500): Students should limit seminar courses to a maximum of 3. These credits require students to attend the weekly seminar and write referee reports. A permit is required, and the PhD Program Coordinator must approve before a permit is issued.

### **Transfer of Credit:**

Students may receive up to 6 course credits of the required 18 for graduate work at other universities. A student who seeks to apply credit for previous course work should submit a written request to the PhD Program Coordinator during their first year in the program. The PhD Program Coordinator will decide whether to grant credit based on the standards of the previous work and its relevance to the student’s program.

### **Grades:**

In order to graduate, a student must maintain at least a Grade Point Average of a “B” or better. A student that receives an “F” can be asked to leave the program.

You will not be able to graduate if a GR/NR/I appear as a grade for any one of the 18 required courses.

## **Qualification Examination**

The finance qualification examination is given once each year, usually in June, after the student’s first year in the program. All students enrolled in the Wharton PhD Program in Finance must take the qualification examination.

If a student fails the examination, the student may retake the exam the following year. If a student fails the examination twice, the student will not normally be allowed to continue in the program as a PhD student. The student may, however, continue to complete the requirements for the master's degree in Finance at the discretion of the examination committee.

## Master's Degree in Finance

Finance PhD Students may apply for the master's degree in Finance if the following requirements are met:

1. Preliminary Examination passed at the master's level or above.
2. Successful completion of a substantial paper can substitute for a master's thesis. Passing the second-year paper (approved by two Finance Faculty Advisors) fulfills this requirement.
3. Eight core course requirements must be met with at least a "B" grade point average with no non-grades of I, I\*, GR, or NR.

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## Two Phases of the Program

The program is divided into two distinct phases: **Pre-Candidacy** and **Candidacy**. Upon satisfying all pre-candidacy requirements, and with the PhD Program Coordinator's review and approval, the student's status will be changed from Pre-Candidacy to Candidacy.

## First Phase: Pre-Candidacy

During the pre-candidacy phase, the student completes the previously outlined required coursework, preliminary examination, and the additional requirements listed below:

1. **English Fluency** test must be passed during the first year by students whose native language is not English.
2. **ECON 897** or **Wharton Math Camp** must be passed.
3. **Teaching Assistant Training** must be passed. The Center for Teaching and Learning will send the department results after training is completed in August, typically after the student's first year.
4. **Communication Workshop** must be passed.
5. **Third-Year Reorientation** must be passed.
6. **Research Fellowships** should be completed in the first and/or second year of the program. However, the PhD Program Coordinator can allow the student to complete this requirement during Candidacy if extenuating circumstances. The student will need to put their request in writing.
7. **Teaching Fellowships** should be completed in the third and/or fourth year of the program.
8. **First-Year Paper** must be passed.
9. **Second-Year Paper Proposal and Presentation** must be passed.
10. **Third-Year Paper Proposal and Presentation** must be passed.
11. Students applying for candidacy must be in good standing in the PhD Program.

## **English Fluency**

International students whose native language is not English are not permitted to do any TA work or hold office hours with undergraduates until they have successfully passed the fluency testing.

## **ECON 897**

This course is offered during Penn Economics' Math Institute from July - August. It is held five days per week.

New students are strongly encouraged to register for ECON 897 before their first semester. A proficiency in calculus and linear algebra is required. There are two ways of demonstrating proficiency: a waiver exam that is usually given in August prior to the fall semester OR take ECON 897 and pass the final examination.

Any student opting out of ECON 897 must discuss this decision with the PhD Program Coordinator when they accept admission to the program.

## **Wharton Math Camp**

Wharton Math Camp is an alternative for those who cannot attend ECON 897. Students will need to discuss this alternative with the PhD Program Coordinator before registering.

Wharton's Summer Math Camp covers the basic principles of mathematical analysis, optimization theory and probability theory. The course is meant to introduce the necessary mathematical tools that are needed for a successful completion of the core courses in economics, operations and statistics.

## **Teaching Assistant Training**

All students in the Wharton Finance PhD Program are required to participate in Teaching Assistant Training. This training must be taken prior to a PhD student becoming a Teaching Fellow or a Teaching Assistant. The Wharton Doctoral Office will send out information concerning sign-up. You will be required to complete the three-day TA training held at the end of August.

## **Communication Workshop**

The communication workshop is held during the student's first year and is a half-day workshop on Communications skills that is meant to both educate the doctoral student and make him/her aware of areas of needed improvement. This workshop is mandatory and is part of the introduction to Wharton's Doctoral Programs.

## **Third Year Reorientation**

This orientation serves as a way to help you progress through your research. We understand that the transition from coursework to full-time research can be an adjustment. We have created a quick one-hour workshop with faculty advice on the following topics to help you during this stage of your program:

- How to proceed in this phase (no longer taking courses, preparing to propose)

- Advice on how to find a topic
- How to be efficient and motivated during this phase
- Theoretical and empirical methods of research
- Student perspective on third-year transition
- Reminders of programs and resources available to students that are relevant to you at this stage.

### **Research Fellowships**

Students are required to complete 2 research fellowships. The first may be performed in the summer after the student's first year in the program. This may result in their first-year paper. The second may be performed in a semester in the second year. Research fellowship involves semester-long work as a research assistant for approximately 10 hours per week.

Research assistant positions that are paid do not count toward the student's research fellowship requirement. All research fellowships and assistant positions must be approved by the PhD Program Coordinator.

### **Teaching Fellowships**

Students are required to complete 4 teaching fellowships (4 CUs). They are generally completed in the student's third and fourth year in the program. A teaching fellowship involves approximately 10 to 15 hours per week.

All teaching fellowships and assistant positions must be approved by the PhD Program Coordinator.

### **First-Year Paper**

All first-year students are required to write and turn in a 1<sup>st</sup> year paper by September 30<sup>th</sup> of their second year. This may result from a research fellowship or a course taken in the first year.

### **Second-Year Paper Proposal and Presentation**

Students are expected to submit a 2<sup>nd</sup> year paper proposal by May 15<sup>th</sup> of their second year in the program.

Presentation of the 2<sup>nd</sup> year paper must be completed by September 30<sup>th</sup> of their 3<sup>rd</sup> year in the program.

To better assist our students with the writing of their 2<sup>nd</sup> year paper and future papers, 2<sup>nd</sup> year papers are required to be reviewed by a writing coach that has been retained by the Wharton Doctoral Program Office.

Once the presentation has been given, the student has between September and December 15<sup>th</sup> of their third year to request the writing coach review, give feedback and approve the paper. The 2<sup>nd</sup> year paper presentation cannot be passed without the writing coach's review and approval.

### **Third-Year Paper Proposal and Presentation**

Students are expected to submit a 3<sup>rd</sup> year paper proposal by May 15<sup>th</sup> of their third year in the program.

Presentation of the 3<sup>rd</sup> year paper must be completed by September 30<sup>th</sup> of their 4<sup>th</sup> year in the program.

## Second Phase: Candidacy

The candidacy phase comprises the preparation and defense of the dissertation proposal, doctoral dissertation, and final defense of the dissertation. With the addition of the 3<sup>rd</sup> paper, the proposal can be submitted in the pre-candidacy phase of the program even though the paper is scheduled to be presented during the beginning of the candidacy phase of the program.

Upon advancement to candidacy, each student should have a Dissertation Committee consisting of three faculty members minimum (including at least two members of the Wharton graduate group), which may include the Supervisor/Advisor.

Dissertations based on joint work with other researchers are allowed, provided that, in such cases, a unique and separate dissertation is presented by each degree candidate. The candidate must include a concise account of their contribution to the whole work. Authorship of a dissertation by more than one candidate is not allowed.

### Dissertation Proposal Defense and Fifth-Year Funding

To be eligible for consideration for a 5<sup>th</sup> year merit-based grant, a student must successfully present a dissertation proposal by May 15<sup>th</sup> of the student's 4<sup>th</sup> year in the program. The PhD Program Coordinator and Department Chair will determine the allocation of funds among eligible students.

Any compensation for teaching assistance is unrelated to this merit-based grant. Students who receive a merit-based grant may receive compensation for teaching assistance.

**NOTE:** Students that do not successfully propose by September 30<sup>th</sup> of their 5<sup>th</sup> year will not be allowed to provide teaching assistance unless written approval is received from the PhD Program Coordinator.

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### Paper, Proposals, and Dissertation Evaluations

The Finance Department sets a high standard for required papers, proposals, and dissertations. This is our main tool for assessing progress of our students' research potential and, thus, we demand a high threshold for passing.

1. **Pass** – the paper successfully demonstrates the student's ability to conduct and report on original and independent research.
2. **Conditional Pass** – the paper shows potential and the student has made significant progress. However, there is room for minor revisions. Students will be given the required date for revision submission.
3. **Major Revision Required** – the paper shows potential and the student has made some progress. However, there is room for thorough revisions. Students will be given the date required for revision submission and to present again.
4. **Fail** – the paper does not show a promising path forward. In some cases, this might trigger dismissal from the program. In other cases, the student will be asked to start identifying a new topic and will be given the date required to submit a new paper and present. The PhD Coordinator will provide detailed instructions and guidance based on the case.

## **Program Restrictions**

### **Time Limitations**

Students must complete all course work, preliminary examinations, and the dissertation requirement within 16 semesters (excluding summer) from the date of their matriculation (excluding leaves of absence). Except in unusual circumstances, students will be expected to gain admission to candidacy status prior to the end of their fourth year in the program (excluding leaves of absence).

If a student has not completed all requirements for the PhD (including deposit of the dissertation) at the end of the fifth year after beginning dissertation candidacy, they must submit to the full dissertation committee, within two months of completing that fifth year, a copy of all written work completed to date on the dissertation. If the student is unable to construct such a committee, they can be dropped from the program.

### **Employment While in the Program**

Students in the Wharton Finance PhD Program are not allowed to accept employment without first receiving approval from the Wharton Finance PhD Program Coordinator. The implications of not requesting and receiving approval can be severe. The student could lose their good standing status in the program and this could result in being asked to leave the program immediately.