Wharton Finance PhD Program of Study

The Wharton Finance PhD Program is STEM certified.

Two Phases of the Program

The program is divided into two phases: **Pre-Candidacy** and **Candidacy**. Student status changes to candidacy upon satisfying all pre-candidacy requirements and with the program coordinator's approval.

First Phase: Pre-Candidacy

The first stages of pre-candidacy in the program require the successful completion of the below requirements:

1. **21 Course Unit Requirement**:
   - Up to 4 courses per semester may be counted toward the overall requirement of 21 course units.
   - 8 core courses completed by students in their 1st year in the program consist of:
     - 2 Microeconomic Theory courses
     - 2 Econometrics or Statistics courses
     - 4 Finance courses
   - Coursework will account for **18 CU** of the requirement. The final **3 CU** of the requirement are applied in the final semester when the student has fulfilled and passed their dissertation for graduation.

2. **Qualification Examination**:
   - All students are required to take the qualification examination immediately following their 1st year in the program. The exam will occur once a year and be taken over the course of two consecutive days.
   - Exam 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).

Twenty-One Course Unit Requirement

Finance Core Courses

1st Year Fall Semester:

1. **ECON 7100**: Microeconomic 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.

1st Year Spring Semester:

1. **ECON 6110**: Game Theory and Applications OR **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.

* Required graduate level sequence in **ECON 7300/7310** or **STAT 5200/5210**. 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. Thus, 4 or more finance electives are required from the following courses over the 2nd and 3rd year:

1. **FNCE 9230**: Financial Economics Under Imperfect Information
2. **FNCE 9250**: Topics in Asset Pricing
3. **FNCE 9260**: Empirical Methods in Corporate Finance
4. **FNCE 9320**: Topics in Corporate Finance
5. **FNCE 9330**: International Finance
6. **FNCE 9340**: Empirical Methods in Asset Pricing
7. **FNCE 9360**: Household Finance (0.5 CU)
    - In conjunction with **REAL 9480** – Advanced Topics in Urban Economics: Household Real Estate Decision-Making
8. **FNCE 9370**: Topics in Macro Finance

Additional Course Credits

With 8 core and 4 elective courses in Finance, students will need to take 6 additional courses before the final 3 credits of the requirement are applied during the transition from coursework to dissertation status.

Students can complete these additional credits in the following ways:

1. Transfer credits.
2. Graduate level electives from other departments: Economics, Statistics, Accounting, Mathematics, etc.
3. Maximum of 3 Seminar courses (FNCE 9500)
    - These credits require students to attend the weekly seminar and write referee reports. A permit is required and the program coordinator must approve before a permit is issued.

Transfer Credits

Students may receive up to 6 course credits of the required 21 for graduate work at other universities.

A student who seeks to apply credit for previous coursework should submit a written request to the program coordinator during their 1st year in the program. The program coordinator will decide whether to grant credit based on the standards of the previous work and its relevance to the student's program of study.

If approved by the program coordinator, transfer credits will be applied after the student has completed and successfully passed the qualification exam.

Grades

To graduate, a student must maintain a GPA of 3.0 or better. A failing grade may result in program dismissal.

You will not be able to graduate if a GR/NR/I appears as a grade for any required course.

Qualification Examination

The 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 exam, they may retake one or more sections of it the following year. The exam committee will dictate which sections must be retaken, but the student may retake additional sections at their discretion.

For sections that are retaken, scores from the second year will replace the previous year's scores. For sections that are not retaken, scores from the first year will carry forward. If, based on the combined performance across all four sections, a student fails the examination twice, the student will not normally be allowed to continue in the program as a PhD student.

If the failing student is dismissed from the PhD program, they will have the option to complete the below 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. Qualification 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 have at least a "B" GPA with no non-grades of I, I*, GR, or NR.

Additional Pre-Candidacy Requirements

After completing course requirements and the qualification exam, the following requirements must also be met:

1. English Fluency Test
2. Econ 897 Math Institute or Wharton Math Camp.
3. Teaching Assistant/Teaching Fellowship Training
4. Communication Workshop
5. Third-Year Reorientation
6. Research Fellowships
7. Teaching Fellowships
8. First-Year Paper
9. Second-Year Paper Proposal and Presentation
10. Third-Year Paper Proposal and Presentation

English Fluency

International students whose native language is not English must pass this fluency test during their 1st year.

Applicable students are not permitted to do TA work or hold office hours until successfully passing the exam.

ECON 897 Math Institute

Penn Economics' Summer Math Camp is offered from July – August and is held five days per week.

New students are strongly encouraged to register for ECON 897 before their first semester. Proficiency in calculus and linear algebra is required and can be determined in two ways: a waiver exam that is usually given in August prior to the fall semester or take ECON 897 and pass the final examination.

Any admitted student opting out of this course must first discuss this decision with the program coordinator.

Wharton Math Camp

Wharton's Math Camp is held in August and 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 the successful completion of the core courses in economics, operations, and statistics.

This is an alternative for those unable to attend ECON 897 and must be approved by the program coordinator.

Teaching Assistant/Teaching Fellowship Training

All students in the program are required to participate in TA/TF Training. This training must be taken prior to the student becoming a teaching assistant or teaching fellow. Students will be required to complete the three-day TA/TF training held at the end of August, typically after their 1st year in the program.

The Center for Teaching and Learning will send the department results after training is completed in August.

Communication Workshop

The communication workshop is presented by the Wharton Communication Program and is held during the student's second year. This workshop is designed to assist with communications skills and make students aware of areas of necessary improvement for their presentations.

Third-Year Reorientation

This orientation helps students progress in their research. The one-hour workshop is designed to help with the transition from coursework to full-time research and includes faculty advice on the following topics:

- 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

Research fellowships involve semester-long research service for approximately 10 hours per week on average.

Students are required to complete 2 research fellowships. The first may be completed in the summer after the 1st year in the program and may result in the 1st year paper.

Research assistant positions that are paid do not count toward the student's research fellowship requirement.

All research fellowships must be approved by the PhD Program Coordinator.

Teaching Fellowships

Teaching fellowships involve semester-long teaching service for approximately 10 hours per week on average.

Students are required to complete 2 CU of teaching fellowships, which are generally done in the student's 3rd and 4th years in the program.

Teaching assistant positions that are paid do not count toward the student's teaching fellowship requirement. While not required, the department recommends that students also complete 2 CU as a paid teaching assistant in addition to their teaching fellowships.

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

First-Year Paper

All 1st year students are required to write and submit a 1st year paper by September 30th of their 2nd year.

This paper may result from a research fellowship or from a course taken in the 1st year.

Second-Year Paper Proposal and Presentation

Students must submit a 2nd year paper proposal by May 15th of their 2nd year in the program.

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

Third-Year Paper Proposal and Presentation

Students must submit a 3rd year paper proposal by May 15th of their 3rd year in the program.

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

Second Phase: Candidacy

The candidacy phase is comprised of the preparation and defense of the dissertation proposal, doctoral dissertation, and final defense of the dissertation. With the addition of the 3rd 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.

All students applying for candidacy must remain in good standing within the PhD Program.

Dissertation Proposal Defense and Fifth-Year Funding

To be eligible for consideration for a 5th year merit-based grant, a student must successfully present a dissertation proposal by May 15th of the 4th year in the program. The 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 still receive compensation for teaching assistance.

NOTE: Students who do not successfully propose by September 30th of their 5th year will not be allowed to provide teaching assistance unless written approval is received from the program coordinator.

To the extent possible, we will provide partial funding during the 6th year assuming the student is making good progress in their studies.

Research Evaluation

The department sets a high standard for required papers, proposals, and dissertations. This is our main assessment of the progress of a student's research potential and, thus, we demand a high threshold for passing. The guidelines by which these papers are evaluated by a student's advisors are outlined in the below options.

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. Detailed guidance will be provided.

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 5th 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 program are not allowed to accept employment without receiving approval from the 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.