Ph.D. in Business Administration-Finance

Degree Offered
• Doctor of Philosophy

Nature of the Program
The Ph.D. in Business Administration with a major in Finance is a full-time, in-residence program lasting 4-5 years. It is a relatively small, high-quality program. The primary goal of the program is to prepare students for careers in research and teaching at comprehensive universities. The program of study requires the satisfactory completion of coursework, a first year summer research paper, a comprehensive examination, and a dissertation. Students will take courses in various finance topics, economics, econometrics, research methods, and statistics. The program distinguishes itself with small classes and an "open-door" policy, which allows for close interaction between students and faculty (https://business.wvu.edu/faculty-and-staff/directory/?dname=Finance) to discuss ideas and work on joint research projects. Early involvement of students in faculty-directed research projects provides students with the opportunity to develop a pipeline of research while in their doctoral program of study. Our aim is that all students will present their work at academic conferences and have at least one published scholarly paper by the time they graduate. Students also gain teaching experience by teaching undergraduate finance courses typically after their first year in the program.

Academic Standards
The following criteria must be met for a student to remain in good standing:

1. Maintain a minimum 3.0 cumulative grade point average in all graduate courses taken at WVU.*
2. Earn grades of “A” or “B” in all graduate courses taken at WVU.*
3. Earn no more than two incomplete grades per semester, barring exceptional circumstances in which a deferment is officially granted by the Ph.D. Program Coordinator.
4. Resolve any incomplete grade in a timely manner.
5. Successfully complete any qualifying/summer papers and/or qualifying exams within the prescribed timeframe.
6. Successfully complete a comprehensive exam within four years of starting the program. Failure to pass the comprehensive exam after two attempts will result in dismissal from the program.
7. Successfully defend a dissertation proposal within five years of matriculation.
8. Successfully defend a dissertation within seven years of matriculation.
9. Attend scholarly presentations and interact as part of the community of scholars.
10. Perform Graduate Assistantship duties in a satisfactory manner (if applicable).
12. Observation of and adherence to WVU's Academic and Professional Standards (http://catalog.wvu.edu/graduate/enrollmentandregistration/#text).
13. Observance of and adherence to the professional standards of the student’s home discipline, as defined by the recognized scholarly organization that governs the progression (as identified by the Program Ph.D. Committee)

*Where either of these conditions are not met, the student will be placed on probation and a remediation plan will be developed by the Ph.D. Program Coordinator. Where the conditions of the remediation plan are not met within the prescribed timeline, the student will be dismissed from the program.

Admissions
Students who have an M.S. in Finance or an MBA with a concentration in finance from an accredited academic institution can enter into the Ph.D. program directly. Alternatively, if students lack sufficient academic background in finance, our M.S. in Finance program (http://catalog.wvu.edu/graduate/collegeofbusinessandeconomics/finance/#text) will serve as an essential preliminary step towards a Ph.D. degree. The following will be considered for admission into the program:

• A completed application received by December 1 is required to be considered for University fellowships. Completed applications received by January 15th of each admission year will be given full consideration for College fellowships and admission in the succeeding fall semester.
• A bachelor's degree or equivalent from an accredited university.
• A statement of purpose regarding the Ph.D. program describing why the applicant is pursuing a Ph.D. in Business Administration with a major in Finance and the applicant's career aspirations upon completion of the degree.
• A current résumé.
• Two letters of reference.
• Official copies of all university transcripts with cumulative GPA scores of 3.25 or better on all undergraduate courses and 3.5 on graduate courses (based on U.S. standard of 4.0).
• An official Graduate Management Admissions Test (GMAT) score is preferred; however, in some cases a GRE (Graduate Record Examination) will be accepted. A high GMAT/GRE score is required for admission to the Ph.D. Program in Business Administration with a major in finance. Successful applicants to our program usually have GMAT or GRE scores in the 80+ percentile.

• The John Chambers College of Business and Economics TOEFL requirement for Ph.D. in Business Administration applicants is higher than the University’s. Students whose first language is not English must obtain a score of at least 100 on the TOEFL-ibt (250 under the old computer-based exam or 600 under the paper-based exam) or a score of at least 7.0 on the IELTS test to be admitted to graduate study. Go to www.toefl.org or www.ielts.org to register and find out more about the test. This is a University requirement.

• Applicants who have received a high school diploma or a bachelor’s degree from an accredited college or university in the United States, United Kingdom, or other predominantly English-speaking country are usually exempt from the TOEFL/IELTS requirement. Applicants with only a master’s degree from a predominantly English-speaking country must still provide acceptable TOEFL or IELTS scores.

These entrance requirements are the minimum requirements for regular admission. Since there is limited space in each year’s class, meeting these entrance requirements does not guarantee admission. Applicants will not be accepted on a provisional basis.

Apply Here (https://graduateadmissions.wvu.edu/how-to-apply/)

Program Requirements

The program is designed to be completed in four or five years, depending on the student’s background, interests, and dissertation progress. The program of study requires the satisfactory completion of coursework plus dissertation research. Students will take courses in economic theory, econometrics, and finance, followed by a comprehensive examination and dissertation research.

The Ph.D. program in Business Administration with a major in Finance is a full-time graduate program and requires at least three years in residence. The residency requirement is important because the doctoral degree has aspects of an apprenticeship which can only be accomplished on campus. Additionally, teaching on campus is a requirement of the program. Students are expected to teach after their first year in the program. They will work closely with faculty to ensure quality instruction and receive feedback on their development as university-level teachers, predominantly English-speaking.

Major Code: 2127

Minimum 3.0 GPA required.

Doctor of Philosophy

Our program is built around an applied curriculum with a strong theoretical and quantitative foundation. The program involves doctoral level coursework, a first year research paper, and presentation to faculty, passing a finance comprehensive exam, and defending a dissertation.

CURRICULUM REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 701</td>
<td>Advanced Micro-Economic Theory 1</td>
<td>4</td>
</tr>
<tr>
<td>ECON 702</td>
<td>Advanced Macro-Economic Theory 1</td>
<td>3</td>
</tr>
<tr>
<td>ECON 711</td>
<td>Advanced Micro-Economic Theory 2</td>
<td>4</td>
</tr>
<tr>
<td>ECON 721</td>
<td>Mathematical Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 725</td>
<td>Econometrics 1</td>
<td>3</td>
</tr>
<tr>
<td>ECON 726</td>
<td>Econometrics 2</td>
<td>3</td>
</tr>
<tr>
<td>ECON 727</td>
<td>Econometrics 3</td>
<td>3</td>
</tr>
<tr>
<td>FIN 736</td>
<td>Asset Pricing</td>
<td>3</td>
</tr>
<tr>
<td>FIN 741</td>
<td>Corporate Finance Seminar</td>
<td>3</td>
</tr>
<tr>
<td>FIN 742</td>
<td>Investments Seminar</td>
<td>3</td>
</tr>
<tr>
<td>FIN 743</td>
<td>Advanced Topics Seminar</td>
<td>3</td>
</tr>
<tr>
<td>Research Hours</td>
<td></td>
<td>39</td>
</tr>
<tr>
<td>FIN 797</td>
<td>Research</td>
<td></td>
</tr>
<tr>
<td>1st Year Research Paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehensive Exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissertation Proposal Defense</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissertation Defense</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>74</td>
</tr>
</tbody>
</table>
SUGGESTED PLAN OF STUDY

**First Year**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
<th>Summer</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 701</td>
<td>4</td>
<td>ECON 711</td>
<td>4</td>
<td>Student Research Paper</td>
<td></td>
</tr>
<tr>
<td>ECON 721</td>
<td>3</td>
<td>ECON 725</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 702</td>
<td>3</td>
<td>FIN 736</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
<td><strong>10</strong></td>
<td><strong>0</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Second Year**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
<th>Summer</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 726</td>
<td>3</td>
<td>ECON 727</td>
<td>3</td>
<td>Finance Comprehensive Examination</td>
<td></td>
</tr>
<tr>
<td>FIN 741</td>
<td>3</td>
<td>FIN 742</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIN 797</td>
<td>3</td>
<td>FIN 743</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>9</strong></td>
<td><strong>0</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Third Year**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 797</td>
<td>9</td>
<td>FIN 797</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>9</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

**Fourth Year**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 797</td>
<td>9</td>
<td>FIN 797</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>9</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

Total credit hours: 74

**COURSES**

**FIN 500. Corporate Finance. 3 Hours.**
PR: BADM 511, BADM 522, and BADM 524. A practical consideration of the operation of financial markets, considerations for the inter-temporal comparisons of opportunities, and the elements of the decision-making criteria for the financial manager.

**FIN 510. Investments and Portfolio Management. 3 Hours.**
PR: BADM 532. The course provides theoretical understanding of how financial decisions are made under uncertainty. The topics include the securities market environment, modern portfolio theory, risk analysis, bond and stock valuations, and derivative securities.

**FIN 511. Financial Economics. 3 Hours.**

**FIN 512. Ethical Standards in Finance. 3 Hours.**
An overview of the impact of legal, societal, and ethical considerations on business decision-making and strategic planning in the finance industry.

**FIN 513. Macroeconomics and Financial Markets. 3 Hours.**
This course provides students with an understanding of how macroeconomic performance is measured, how monetary and fiscal policies influence macroeconomic performance, and how these relate to financial markets around the world.

**FIN 520. Quantitative Finance. 3 Hours.**
Examines statistical and probability concepts, statistical inference, regression analysis, time series analysis and financial modeling. Emphasizes financial applications, including portfolio optimization and analysis of financial time series.

**FIN 521. Financial Reporting and Analysis. 3 Hours.**
Fundamental security analysis requires that cash flows be evaluated primarily using external accounting data. This course provides students with the skills necessary to evaluate financial reports focusing on firm valuation.

**FIN 522. Advanced Corporate Finance. 3 Hours.**
Case study approach focusing on complex problems in the corporate forecasting, capital budgeting, cost of capital analysis, the financing of capital investments, and financial decisions on strategic investment.

**FIN 523. Equity Investment. 3 Hours.**
This course provides students with professional knowledge of investment tools in equity markets, industry and company analysis, valuation models, and equity portfolio management.
FIN 525. Derivative Securities. 3 Hours.
This course will extend the student's knowledge of derivatives markets for commodities and financial instruments. Particular attention will be given to the use of financial derivatives for risk management.

FIN 526. Portfolio Management. 3 Hours.
Examines the complete investment process from constructing investment objectives and policies to strategic asset allocation, security selection, trade execution, portfolio monitoring, and performance measurements.

FIN 527. Alternative Investments. 3 Hours.
Alternative investments are a growing presence in financial markets. These investments allow the investors to diversify their portfolios beyond rational debt and equity securities. This course provides students with the skills necessary to understand the risks and rewards in alternative investment markets.

FIN 528. Integrated Financial Analysis. 3 Hours.
This is a capstone course that brings together all elements of financial planning including ethical standards, quantitative methods, economics, financial reporting, corporate finance, equity and fixed income investments, derivatives, portfolio management, and wealth planning.

FIN 529. FinTech. 3 Hours.
Fintech (or financial technology) is one of the most fast-moving industries. The applications of fintech go over different areas in investments, banking, and other financial institutions. This course introduces students to the major topics of Fintech, including Blockchain, Bitcoin, Alternative Cryptocurrencies, FinTech Credit, InsurTech, Crowdfunding, Big Data, Machine Learning, Robo Advisers, and Algorithmic Trading.

FIN 530. Energy Financial Economics. 3 Hours.
Introduction to the ways in which legal/regulatory systems affect the energy industry and to important economic and political concerns that underlie the regulation of the production and trading of energy and the connections to the derivative markets for the energy sector.

FIN 531. Energy Law/Regulation/Ethics. 3 Hours.
Provides an understanding of energy markets and the ancillary markets, the legal and regulatory environments, and the ethical questions surrounding this business sector. Additionally, the course will help prepare participants to address the ethical standards of the finance profession.

FIN 532. Energy Financial Accounting. 3 Hours.
Provides the tools to interpret and analyze external financial information from the viewpoint of investors and creditors. The energy sector has a unique perspective from other industries. The role of mark to market accounting techniques will be emphasized.

FIN 533. Energy Financial Risk Management. 3 Hours.
Investigates the evolving and expanding practice of financial risk management in the energy sector. Risk management is a complex process of identifying, quantifying, and managing risk exposures. The course analyzes and discusses the various sources of risk.

FIN 591. Advanced Topics. 1-6 Hours.
PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

FIN 592. Directed Study. 1-6 Hours.
Directed study, reading, and/or research.

FIN 593. Special Topics. 1-6 Hours.
A study of contemporary topics selected from recent developments in the field.

FIN 594. Seminar. 1-6 Hours.
Special seminars arranged for advanced graduate students.

FIN 595. Independent Study. 1-9 Hours.
Faculty supervised study of topics not available through regular course offerings.

FIN 690. Teaching Practicum. 1-3 Hours.
PR: Consent. Supervised practice in college teaching of finance. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It also provides a mechanism for students not on assistantships to gain teaching experience. (Grading will be P/F.)

FIN 691. Advanced Topics. 1-6 Hours.
PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

FIN 695. Independent Study. 1-9 Hours.
Faculty supervised study of topics not available through regular course offerings.

FIN 696. Graduate Seminar. 1-3 Hours.
PR: Consent. Each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program.

FIN 697. Research. 1-9 Hours.
PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)
FIN 699. Graduate Colloquium. 1-6 Hours.
PR: Consent. For graduate students not seeking coursework credit but who wish to meet residency requirements, use of the University's facilities, and participate in its academic and cultural programs. Note: Graduate students who are not actively involved in coursework or research are entitled, through enrollment in their department's 699/799 Graduate Colloquium to consult with graduate faculty, participate in both formal and informal academic activities sponsored by their program, and retain all of the rights and privileges of duly enrolled students. Grading is P/F; colloquium credit may not be counted against credit requirements for masters programs. Registration for one credit of 699/799 graduate colloquium satisfies the University requirement of registration in the semester in which graduation occurs.

FIN 735. Portfolio Theory. 3 Hours.
PR: ECON 701 and ECON 702. Basics of decision making under risk. Portfolio choice under various utility and returns specifications. Asset allocation over time.

FIN 736. Asset Pricing. 3 Hours.
Theories of the determination of prices and returns in financial markets. Properties of general static and intertemporal asset pricing models and determinants of equilibrium returns in specific general equilibrium models.

FIN 737. Corporate Finance Theory. 3 Hours.
A comprehensive examination of the foundational theories in corporate finance. Topics will include: finance theory under certainty and uncertainty, utility theory, capital structure, issuance, dividend policy, corporate governance, M & A theory, and financial distress.

FIN 741. Corporate Finance Seminar. 3 Hours.
This course acquaints students with theoretical and empirical research in corporate finance. Topics include capital structure, dividend policy, stockholder-manager and bondholder-stockholder agency conflicts, governance mechanisms, market for corporate control, bankruptcy and corporate restructuring.

FIN 742. Investments Seminar. 3 Hours.
PR: ECON 736. A comprehensive examination of the theoretical and empirical literature covering the foundational topics in investments. Topics include portfolio theory, performance evaluation, derivatives, market anomalies, investor behavior and other pertinent developments in the investment area.

FIN 743. Advanced Topics Seminar. 3 Hours.
Examination of the theoretical and empirical research in important areas of finance. Examples include financial institutions, international finance, behavioral finance and market microstructure.

FIN 795. Independent Study. 1-9 Hours.
Faculty Supervised study of topics not available through regular course offerings.

FIN 797. Research. 1-9 Hours.
PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U).

FIN 930. Professional Development. 1-6 Hours.
Professional development course provide skill renewal or enhancement in a professional field or content area (e.g. education, community health, geology). These tuition-waived continuing education courses are graded on a pass/fail grading scale and do not apply as graduate credit toward a degree program.