



THE UNIVERSITY OF ARIZONA  
ELLER COLLEGE OF MANAGEMENT

**Finance**

**Ph.D. Program in Finance  
(Ph.D. in Management)**

Department of Finance

Eller College of Management  
University of Arizona  
Tucson, Arizona

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## **Introduction to the PhD-Finance Degree and the Finance Department**

The Ph.D. program in Management with a concentration in Finance offered by the University of Arizona is designed to lead to an intellectually stimulating career of scholarly research and teaching in finance.

Admission to the Doctoral Study Program depends on the applicant's ability to complete the program as evidenced by his/her undergraduate record, GMAT and/or GRE scores, and letters of recommendation. Research and teaching assistantships, which provide a stipend to help defray expenses, are available and are awarded by the Department. These stipends are available on an annual basis for up to five years of study. Award of an assistantship for study beyond five years will be granted only in rare cases.

Courses are taught and assistantships overseen by world-renowned faculty whose research is published in premiere academic journals and highlighted in top news publications. The department faculty [directory](#) includes contact information and research interest for all our faculty.

The duration of the program is generally five years, though the program can be completed in four years depending on your background and progress. The first two years of the program are taken up by coursework and mastery of the broad areas of finance and economics. You will minor in economics and complete the economics or econometrics written qualifying exam at the end of the first year.

During this time, you should be formulating research projects of your own and will demonstrate your research skills by presenting a research proposal for your second year paper to the faculty in February of your second year. You will present the completed second year paper to faculty in the summer of your second year. The comprehensive written exam in finance is taken in June of the second year.

The emphasis during the third and fourth years of the program is primarily on writing a dissertation, developing your own research, and coursework in a more narrow area of interest. The dissertation must demonstrate to the faculty your ability to produce advanced research in finance.

## Summary of PhD-Finance Program

### Important Deadlines

- Summer before first year
  - SAS workshops in late July  
(currently 5 days of Accounting workshop, 2 days of Finance workshop)
  - Economics math “boot camp” in August
  - Online TATO (Teaching Assistants Teaching Orientation) required for all GAs
- First year
  - Fall/spring – complete required course work (24 units)
  - May/June – Economics qualifying exam
  - Summer – select major advisor, write proposal for second-year paper by the first Friday in August
- Second year
  - Fall/spring – complete required course work (19 units)
  - Fall – submit Plan of Study to Grad College (through GradPath)
  - By November 1, students need to have conducted the main empirical tests of their second-year paper and to have reported to the faculty member supervising their paper what they have found
  - February – second year paper presentation
  - June - Finance comprehensive exam
  - Summer – present final version of second-year paper to faculty
- Third year
  - Complete any coursework necessary to satisfy degree requirements (6 units)
  - Summer – Dissertation Proposal/Oral Exam

### Student in Good Standing Overview

Performance will be evaluated every semester based on (1) grades, (2) research progress, and (3) work as RA/TA.

- Grades – a B (3.0) or higher in **each** class and cumulatively
- RA/TA – faculty members will evaluate
  - Timely, high quality work is important not only in evaluations, but more than likely, the faculty member you work for will be on your dissertation committee and will be writing you a letter of recommendation. Even if they aren't, other faculty members' impressions of you will be largely based on what this person says about you!
- **Attendance at regular Friday seminars (as well as meetings with outside speakers) and scheduled brown bag seminars is required.**
- **Because the program requires a strong commitment on your part, as well as from the faculty and department, a poor performance in academic work, in your assistantship, or in academic integrity related to research and classwork, will likely result in changes to your position in the department.**
- We highly recommend that you spend the majority of your summers in Tucson working on your research projects.

## Department Contacts

### **Faculty PhD-Finance Advisor**

Sandy Klasa  
McClelland Hall, Room 315G  
520.621.8761  
[sklasa@arizona.edu](mailto:sklasa@arizona.edu)

### **Department Head**

Dr. Kathleen Kahle  
McClelland Hall, Room 315Q  
520.621.3462  
[kkahle@arizona.edu](mailto:kkahle@arizona.edu)

### **Director, Graduate Programs and Academic Affairs**

Joelle Good  
McClelland Hall, Room 308  
520.621.1520  
[joellegood@arizona.edu](mailto:joellegood@arizona.edu)

## **Grievance Policy**

The UA Dean of Students and Graduate College have established policies of academic integrity and for appealing a student-related decision. The most current information is available at <https://grad.arizona.edu/policies/academic-policies/grievance-policy>.

A full summary of the types of grievances and responsible parties is available on the Graduate College website at <https://grad.arizona.edu/policies/academic-policies/summary-grievance-types-and-responsible-parties>.

## **Internal Procedure for Student Appeals**

Students have the right to formally request exceptions to department policies and procedures and to formally appeal department decisions by submitting a written request jointly to the Faculty PhD-Finance Advisor and to the Department Head.

## **Physical Resources and Facilities**

PhD students are assigned a carrel in the department for studying, which includes storage areas. In addition, each student will be provided with a desk top computer for use in the department, for study and research. Students have use of department printer/copier and supply area, have a mailbox near the printer, and have use of the kitchen area (including microwave and refrigerator) near the backdoor of the department.

PhD students also have access to McClelland Hall (by CatCard) and rooms in McClelland Hall when not scheduled: Room 312 (Finance Department Conference Room), Room 315U (department seminar room), and Rooms 316 and 317 (department office hour rooms). Bloomberg terminals for graduate students are available in Room 335.

## **Advising**

The Faculty PhD-Finance Advisor is your academic advisor. The Director will also assist with advising for coursework during the first three years of the program and with following Graduate College processes.

The majority of the coursework for your first year of study is required for the program and the Director will assist you with registration and planning. The Director will also provide you with courses available as elective courses when electives fit in your schedule. The Faculty PhD-Finance advisor is available to talk about non-standard elective choices and whether these fit in your schedule, as well as about research-particularly ideas for the 2<sup>nd</sup> year paper. The Faculty advisor can also advise you on courses that fit your area of research interest.

Drop-in meetings with the Director are welcomed when schedules allow. Scheduled appointments can be requested by drop-in or email.

## **Student Resources**

### **UAccess**

UAccess is a password-protected service which allows students to access personal and academic information via the web. Your UA NetID and password are required for login.

UAccess enables students to view and make changes to their academic and personal information. This system has dozens of useful features, which are housed under four major categories: Academic, Financial, Personal and Self-Service.

<http://advising.arizona.edu/content/online-tools/uaccess-student>

### **Graduate College**

All graduate students should know the policies and procedures of the Graduate College. The [Graduate College website](#) provides links to many useful resources for graduate students, including events and workshops for professional development and mentoring provided by [Graduate Center](#). You may also want to get connected with the [Graduate and Professional Student Council](#).

### **Resources for Parents, Professional Development, Health and Wellness**

The [Graduate College website](#) also contains extensive information with resources for professional development, child care, and family resources, along with resources for health, wellness and safety.

### **General University Catalog**

In addition to departmental and Graduate College policies, students are also expected to know and adhere to the policies of the University of Arizona available in the [UA General Catalog](#).

### **University Information Technology Services**

University Information Technology Services (UITS) offers many services besides their 24/7 IT support center available by phone (520) 626-8324 or online at <https://it.arizona.edu/get-support>. More information is available at <http://uits.arizona.edu/>

Students have access to hundreds of different tutorials by visiting <http://uits.arizona.edu/services/uacbt> and logging in using their NetID and password.

## **Software**

University of Arizona's students are able to download one copy of the current version of Microsoft Office (for a PC or Mac) and one copy of Microsoft Windows upgrade (for PC or Mac) at no charge. Students are also eligible to download new product release and upgrades when they become available. Visit <https://it.arizona.edu/service/software-downloads> and log in using a NetID and password for access.

PhD students generally purchase SAS (often reimbursed by the department) and may have other software installed on the department computers by request to EllerIT.

## **Funding and Financial Aid**

Financial aid may be available to some PhD students. Since financial aid is complex and every student's needs vary, the department highly recommends that students contact UA's financial aid office for exact details at (520) 621-1858 or online at <https://financialaid.arizona.edu/apply-for-aid/graduate-professional>.

Because of limited physical seating for finance PhD students, admitted students are usually limited to students receiving full funding from the department. (Exceptions may be made as individual student funding sources and seating is available.) Funding through the Finance Department generally includes full funding of registration fees (i.e., The UA Graduate College and the Finance Department will pay your registration fees) and a Graduate Teaching or Research Assistantship (GTA/GRA), which waives non-resident tuition. Assistantships also carry a stipend for the academic year. Students are responsible for University non-registration/tuition fees each semester. Currently, the GTA stipend also includes paid health insurance coverage for a PhD student.

## **Academic Standing**

### **Student in Good Standing**

The Faculty PhD advisor, in conjunction with the faculty of the Finance Department, will review your performance to ensure that you have demonstrated an aptitude for and an ability to study the material required to develop skills as a solid financial researcher. The decision by the faculty to allow a student to continue in the program and be considered a *Student in Good Standing* will be made on a semester-by-semester basis. Students must be considered to be in good standing to progress to the next semester and to the next examination required in the PhD program.

To be in good standing, you must maintain a grade of 3.0 in each *class* and cumulatively in the PhD program. (Note that grades earned in other graduate degree programs, including the Master of Science in Finance, are not considered by the department in the calculation of the PhD-



Finance program GPA.) Grades below a 3.0 are considered failing grades. You must also pass the required examinations and research requirements at the specified time in the program, as described later in this document.

In addition, you are expected to attend all finance seminars and meet with the seminar speakers during the time slot assigned to PhD students.

Unsatisfactory performance in coursework, research requirements, or a required examination will result in a warning, removal or reduction of one's assistantship, or removal from the program. Plagiarism on the part of doctoral students will not be tolerated and may result in dismissal from the doctoral program. Further, the creation of fictional empirical results in class homework assignments or a student's research paper will result in immediate dismissal from the doctoral program.

Once you have completed your formal coursework, you must be making satisfactory progress on your dissertation to remain in good standing. If you are not making satisfactory progress on your dissertation, you will be given a warning and deadline, at the end of which the faculty expects to see significant progress on the dissertation. Failure to show progress in the proscribed time frame will result in removal of the assistantship or formal dismissal from the program.

In addition to evaluating students based on grades and progress on the dissertation, faculty members will evaluate their Teaching or Research Assistants (TA or RA) each semester, and submit a written copy of this evaluation to the program director. Students whose performance as a TA/RA is unsatisfactory will be given a warning. If students who received warnings of unsatisfactory work fail to improve in the proscribed time frame, their assistantship may be removed, or the student may be formally dismissed from the program.

### **Responsible Conduct of Research**

All graduate students at the University of Arizona are expected to meet all policies regarding the [responsible conduct of research](#) and sign an online form (through GradPath) certifying their awareness of the regulations.

### **Student Responsibilities and Professional Conduct**

Students are expected to adhere to the UA code of conduct. Specific examples of [academic dishonesty, academic misconduct, and how to avoid such behavior, are available on the Dean of Student's website.](#)

## **Coursework and Related Examinations**

### **Expected Learning Outcomes**

Over your time in the PhD program, you will learn skills in finance research, and oral and written communication in finance. The department focuses on and measures your accomplishment in these areas through formal assessment measures, making improvements to the program based on your success and input.

The student will:

#### Research

- Perform high-quality research in finance that is worthy of publication in top-tier journals (i.e., research question and design is significant, data analysis is strong)
- Demonstrate understanding of how his or her research contributes to finance knowledge (i.e., idea raised is original and positioned well within literature)

#### Oral and Written Communication in Finance

- Express financial information and concepts clearly and concisely when speaking (i.e., interacts fluently with audience and keeps attention on the presentation, provides clear summary information with well-designed graphics)
- Integrate financial information and analysis into written research in a well-organized, understandable manner (i.e., document is error-free and easy to read, writing flows smoothly)

### **Transfer Credit**

Since coursework at other campuses often covers different material or topics than our required coursework, transfer credit for 500-level finance courses is not generally requested or approved. However, if you feel you have taken relevant doctoral accounting, economics, finance or mathematics coursework from an AACSB accredited university and received an A or B grade in the course, you may apply for transfer credit of up to 6 units to apply to your UA PhD-Finance degree requirements. The UA Graduate College transfer credit policies apply.

<https://grad.arizona.edu/gsas/degree-requirements/masters-degrees#transfer-credit>

To apply for transfer credit, submit your unofficial transcript, information on the course name, course number, grade and semester or term of completion, along with the original course syllabus, to the department Director of Graduate Programs, with a request that the course be considered for transfer credit. This should be done immediately upon admission to the program. You may need to request the original course syllabus from the department or instructor where you completed the course before applying for transfer credit. If transfer credit is approved by the department, the student must submit a Transfer Credit form in GradPath during the first semester in the program. If approved for transfer by the Graduate College, the approved course will then be reflected on your official Plan of Study in GradPath.

### **Overview of the Coursework and Examinations**

The following is an outline of the coursework and examinations you can expect to complete during the Finance PhD program. The coursework is subject to change due to the availability of classes. Exhibit A provides a sample schedule for an entering student.

During the last week of July, the first-year students are required to complete two [Statistical Analysis Software \(SAS\)](#) workshops taught by the accounting and finance departments. Three weeks prior to the first semester of study, entering Finance PhD students will also be required to take [Economics 519, Math for Economists](#), a boot camp designed to help prepare students for the mathematical rigors of the program. The current textbook for this class is "Mathematics for Economists," by Carl P. Simon and Lawrence Blume. The Economics Department has elected to teach this online in some years. The boot camp syllabus and advance homework sets are generally available by early June from the Economics Department.

To do well in the required first-year courses, students should be very comfortable with calculus and the principles of optimization, as well as know some linear algebra and statistics. **Students with below this level of mathematics background are strongly encouraged to plan to attend courses at the University of Arizona in the summer prior to their enrollment to cover the necessary mathematics topics.**

In the student's first year, the Faculty advisor serves as advisor. By the summer after their first year, the student will arrange for another faculty member to serve as "major professor" and provide advice and guidance on the second year paper. The Faculty advisor and major professor are jointly responsible for approving the student's Plan of Study (to be submitted to the Graduate College no later than the third semester). Eventually, the student will arrange for a tenure-track faculty member to serve as dissertation supervisor. The student and dissertation supervisor work together to form a dissertation or examining committee, which provides timely input to the student and ultimately is responsible for approving the dissertation. The dissertation committee should be formed no later than the end of the third year and submitted to the Graduate College using UAccess GradPath forms.

### **Incomplete Policy**

Because our program is well structured, it is extremely rare for a student to request and be granted an incomplete for a course. There will be little time in the program to make up incomplete coursework.

In order to be considered, a student must request an incomplete from the course instructor and be approved to receive an incomplete. If an incomplete is granted for exceptional circumstances, the student must meet the requirements of the UA General Catalog for incompletes and sign a [Report of Incomplete Grade form](#) as a contract between the student and instructor. Incompletes should also be reported to the Faculty PhD Advisor and the department Director of Graduate Programs.

### **Adding and Dropping a Class**

Students are able to add courses. Many courses require department consent at a graduate level to register, so request registration through the department Director or relevant department staff. You will also want to check the UA Registrar's office for late fee charges if adding a course after the start of the semester.

Students are also able to drop courses. However, due to the well-organized nature of the finance PhD program, caution should be used before dropping a class. ***Please meet with the Director before dropping any course.***

### **First Year Curriculum**

The ***First Year*** focus is on developing a foundation in economics and on acquiring the necessary skills to be a first-rate finance scholar.

The first semester (fall) courses students take include:

Economics 501A, Microeconomic Theory I. A PhD level microeconomics course focusing on individual and firm-level optimization.

Economics 501B, Microeconomic Theory II. An economics course focusing on general equilibrium and competitive analysis as well as market failure. These subjects are becoming increasingly important in the study of finance.

Economics 519A, Mathematical Economics. Introduction to the theory and methods of mathematical economics and its applications. Designed primarily for entering graduate students majoring in economics.

Economics 520, Theory of Quantitative Methods in Economics. A statistics course designed to prepare students to study econometrics.

The second semester (spring) courses will include:

Finance 601, Financial Decision Making. An introductory course to Finance that is taught at a higher level than a typical MBA course.

Finance 695A, Investments. The exchange of scholarly information and/or secondary research, usually in a small group setting. Instruction often includes lectures by several different persons. Research projects may or may not be required of course registrants.

Economics 522A, Econometrics I. The first course in the econometrics sequence studying the theory of econometric estimation of single and simultaneous equation models.

Finance 525, Empirical Methods in Finance: This course familiarizes students with the database and various statistical methods needed to undertake research in finance using Python. Students use Python programming to work with data sets, produce statistics and perform tests on data.

Total credits for the first-year of study will be 24 units, or eight 3-unit courses.

### ***Required Economics Minor***

Each student is required to meet the requirements of a *minor in Economics*, which includes the required first year coursework in economics as listed above. Most finance PhD students choose to complete the Econometrics emphasis, which requires ECON 520, ECON 522A, ECON 522B,

an ECON 696 field course in Econometrics during the second or third year, and passing the first year written qualifying examination administered by the Economics Department faculty. (<https://econ.arizona.edu/doctoral/minor>)

### ***Qualifying Examination***

The written *Qualifying Examination* is taken by PhD students at the *end of the first year* in the program, typically in late May or early June. It is a written examination in either economic theory or quantitative methods and is based on the material taught in the Economics courses taken during the first year of the program. The theory examination covers the material in the microeconomic core courses (ECON 501A and 501B). The quantitative examination covers the material in the statistics and econometrics courses (ECON 520 and 522A). Students can choose which exam to take, based upon the field of finance in which they are interested. Copies of the questions on earlier preliminary exams may be available from the Economics Department Graduate Program Coordinator.

The goal of the exam is to ensure that students have developed an appreciation for how all of the material fits together in a broader framework of economic reasoning. In addition, the exam will help students solidify their knowledge about the core of economics. The qualifying examination is a requirement for continuation in the program.

If the student does not *pass* the exam at the end of the first year of the program, the department may elect to dismiss the student from the PhD program, withdraw financial assistance, or allow the student to retake the exam in August (around the start of Fall semester of the second year of study, per the Economics Department schedule) at which time the first year qualifying examination must be completed with a passing grade in order for the student to continue in the program.

### **Second Year Curriculum**

During the *Second Year* of the program, courses tend to be more specialized and are designed to introduce students to a number of different areas in which they potentially could do research. In the second year, courses will include:

Economics 522B, Econometrics II. The second course in the econometrics sequence studying the theory of econometric estimation of single and simultaneous equation models.

Economics 597C, Teaching Methods in Economics. The purpose of this workshop is to familiarize graduate students with the key skills and understandings that are important in being an effective teacher. (1 unit)

Finance 602, Dynamic Asset Pricing. Financial models and empirical tests: asset pricing models, financial behavior; corporate financial decisions.

Finance 620A, Financial Markets and Corporate Finance. The development and exchange of scholarly information related to corporate finance, usually in a small group setting. The scope of work shall consist of research by course registrants, with the exchange of the results of such research through discussion, reports, and/or papers.

Other courses that could be taken include:

Finance 696H, Research Methods. A course designed for the practical application of theoretical learning within a group setting and involving an exchange of ideas and practical methods, skills, and principles.

Finance 699, Independent Study

Econ 549/AREC 549, Applied Econometric Analysis. A course designed to provide students with hands on experience in econometric modeling (using SAS).

Economics 696A, Experimental Economics I. The development and exchange of scholarly information, usually in a small group setting.

Economics 696E, Econometric Modeling I. The development and exchange of scholarly information, usually in a small group setting.

Economics 696F, Econometric Modeling II. The development and exchange of scholarly information, usually in a small group setting.

Economics 696I, Labor Economics II. The development and exchange of scholarly information, usually in a small group setting.

Economics 696P, Industrial Organization and Regulation I. The development and exchange of scholarly information, usually in a small group setting.

Economics 696Q, Industrial Organization and Regulation II. The development and exchange of scholarly information, usually in a small group setting.

Economics 696W, Environmental and Energy Economics-Empirical. The development and exchange of scholarly information, usually in a small group setting.

Economics 697B, Applied Economic Analysis. The practical application of theoretical learning within a group setting and involving an exchange of ideas and practical methods, skills, and principles.

Math 522, Advanced Applied Mathematics. Review of multivariable calculus, series solutions of differential equations, Laplace transforms, Fourier series, introduction to partial differential equations.

There are also accounting doctoral seminars that depend on faculty availability that may be taken.

Total credits for the second year of study will be 19 units, or six 3-unit courses plus the 1-unit ECON 597C.

NOTE: FIN696H, Research Methods is not intended to replace credit hours required for the degree. If registration of a student is requested by the department, the course may be

taken no more than four times for credit towards the required unit hours for a PhD degree. Please check the UA General Catalog for the grading method.

### ***Summer Funding***

Additional summer funding **may** be available to PhD students on a competitive basis. This may take the form of summer teaching opportunities, guidance of MSF projects under the supervision of finance faculty, or competitive research grants.

### ***Plan of Study***

“In conjunction with his/her major professor or advisor, each student is responsible for developing a Plan of Study during their first year in residence, to be filed with the Graduate College through UAccess GradPath no later than the student's **third semester** in residence.” The Plan of Study identifies (1) courses the student intends to transfer from other institutions [and approved at the time of application to the PhD program]; (2) courses already completed at The University of Arizona which the student intends to apply toward the graduate degree; and (3) additional course work to be completed in order to fulfill degree requirements. The Plan of Study must have the approval of the student's major professor and department head (or Director of Graduate Studies) before it is submitted to the Graduate College.”

(<https://grad.arizona.edu/gsas/degree-requirements/doctor-philosophy#plan-of-study>)

### ***Second Year Paper***

In addition to completing their coursework and qualifying examinations, all students must submit a second-year paper to continue in the program. This second year paper could be a follow up study to a paper discussed in FIN 601, FIN695A or ACCT 682, a seminar paper presented during the first year, a paper that the student has independently read, or a faculty member's current research.

A proposal for the second-year paper must be approved by the Faculty advisor and the student's “major professor” by the first Friday in August during the summer after the first year. The proposal to the first-year paper should be 5-10 pages in length and include a literature review, hypothesis development and motivation for the research questions to be answered in the paper, discussion of the proposed main tests that will be conducted in the paper (i.e., discussion of specific regression models), and a description of the data that will be used in the paper's analyses.

By November 1, the student needs to report back to their major professor on the results for the paper's main tests (i.e., what are the results for the main tests of the paper that were outlined in the proposal to the paper). The preliminary second year paper must be presented to the faculty in February of the second year. At this time, the student must have a written document that at a minimum includes (1) a thorough literature review, (2) hypotheses, (3) data and methodology, and (4) tables.

Satisfactory progress on the second year paper is required for a student to take their written comprehensive exam. The completed paper must be presented to the faculty in the summer following their second year. The completed paper must be given to the faculty at least one week prior to the presentation of the paper, and must be a complete paper with an introduction, literature review, hypotheses, data and methodology, results, and a conclusion. The completed

paper must be a polished paper that resembles the working papers presented by seminar speakers during Friday seminars.

Failing to meet the second year paper requirements may result in immediate removal of the student's assistantship and the student may be formally dismissed from the program.

### ***Comprehensive Written Examination***

In the beginning of the summer following the second year (usually in June, shortly after classes end), students will take the *comprehensive written examination* covering the entire field of finance. Students are expected to be able to answer questions from all areas of finance, although the emphasis will be on topics discussed in the finance courses the students have taken during the first two years of the program and department seminars the students have attended during the same time. (<https://grad.arizona.edu/gsas/degree-requirements/doctor-philosophy>)

Students who do not pass the comprehensive examination may, at the discretion of the faculty, be given a second chance to pass the exam prior to the start of the following fall semester, be awarded an MS degree if they have satisfied the Master's requirements, and/or be dismissed from the PhD program.

The Graduate Council and the Faculty Senate require that students must complete their degree within five (5) years of passing the Comprehensive Examination. Should a student not finish within that time period, he or she may be allowed to re-take the Written Comprehensive Examination with permission of the program.

### **Third and Fourth Years of Study**

#### ***Dissertation Proposal (Comprehensive Oral Examination) and Related Topics***

During the third and fourth years of the PhD program, students will complete the required coursework for the degree, including 18 units of dissertation as required by the UA Graduate College. The Ph.D. in Management with a concentration in Finance will require not less than 66 total credit hours, including 18 hours of dissertation credit.

No later than the September of their fourth year, students are required to successfully complete the ***dissertation proposal and comprehensive oral examination on related topics***

(<https://grad.arizona.edu/gsas/degree-requirements/doctor-philosophy#comprehensive-exam>).

The typical dissertation proposal defense and oral exam starts with extensive questioning on the student's dissertation proposal and related research and then expands over time into the fundamentals of finance and economics that the student must know to complete their research and also to be considered a good finance researcher. In addition, the comprehensive oral examination will test a student's ability to understand at a deeper level the state of the knowledge on a particular topic, and his/her ability to formulate and defend a research proposal on this topic.

Under the supervision of one or more Finance faculty members (the dissertation chair(s)), students are expected to prepare and submit a research proposal at least one month prior to the date of the *dissertation proposal* for review by the Finance faculty members. After consulting with the Faculty advisor and the dissertation chair(s), the student chooses a *dissertation proposal (oral examination) committee*. The dissertation committee typically consists of three members of



the Finance faculty and one member from the department of the student's minor field (generally Economic Theory or Econometrics).

The dissertation research proposal should demonstrate an understanding of the literature in an area of the student's choosing and should contain a research strategy that has the potential to advance knowledge in the area. This document should contain:

- 1) An introduction, overview, and outline of the entire dissertation;
- 2) A relatively polished chapter with results; and,
- 3) A second chapter in-process and demonstrating that the student is relatively far along in the research.

The oral examination typically starts with a 10 to 15 minute presentation and overview of the dissertation proposal that briefly touches on all aspects of the thesis, including overheads for key tables as appropriate. The focus during the examination will be on the student answering the committee's questions, first concentrating on the student's dissertation proposal and the financial and economic issues related to the proposal. The questioning will expand to address the fundamental knowledge that the student must have mastered to complete their research in the field and the general knowledge that professional researchers in finance should know. This is the occasion when faculty committee members have both the opportunity and obligation to require the student to display a broad knowledge of the chosen field of study and sufficient depth of understanding in areas of specialization. The examining committee must attest that the student has demonstrated the professional level of knowledge expected of a junior academic colleague.

At least three members of the faculty dissertation committee (and a faculty member from the minor field) must be in attendance for the entire exam, which should be at least one hour in length, but not exceed three hours. If three members are present, all must approve in order for the student to pass; if four members are present, at least three must approve. Students should expect the typical length to be roughly an hour and a half to two hours. If a student fails the oral exam on the first try, a reexamination may be given in certain circumstances. However, any reexamination must be recommended by the examining committee, endorsed by the major department, and approved by the Graduate College. The Graduate College allows no more than one retake of the oral exam. (<https://grad.arizona.edu/gsas/degree-requirements/doctor-philosophy#comprehensive-exam-committee>)

Additionally, if the student does not *pass* the comprehensive oral examination by the start of the fourth year of the program, the department may elect to dismiss the student from the PhD program, withdraw financial assistance awarded in prior semesters, and/or set a date (before the end of the Fall semester of the fourth year of study) by which time the comprehensive oral examination must be completed with a passing grade.

If a student does not *take* the comprehensive oral examination before the Fall semester of the fourth year, the Department may elect to recommend dismissal of the student from the PhD program to the Graduate College, withdraw financial assistance awarded in prior semesters, and/or set a date (before the end of the Fall semester of the fourth year of study) by which time the comprehensive oral examination must be completed and passed.

The results of the comprehensive examinations (written and oral) are posted on the students' GradPath record after successful completion of the oral examination and stored in the milestones record documenting progress toward completion of the degree.

***Comprehensive Examination for Advancement to Candidacy and Dissertation of Defense***  
Satisfaction of the course requirements and passing all examinations advances the student to the ***candidacy for the PhD degree.***

“When the student has an approved doctoral Plan of Study on file with the Graduate Degree Certification Office, has satisfied all course work, language, and residence requirements, and passed the written and oral portions of the Comprehensive Examination their bursar account will be billed the he student will be billed the [graduate candidacy fees](#) and will be notified by e-mail of the advancement and fees. This is a one-time fee and the student will not be billed again if they change their anticipated graduation date.

(<https://grad.arizona.edu/gsas/degree-requirements/doctor-philosophy#comprehensive-exam>)

“When the student has an approved doctoral Plan of Study on file, has satisfied all course work, language, and residence requirements, and passed the written and oral portions of the Comprehensive Examination, he or she must file a Committee Appointment form. Any changes to the committee should be reported to the Graduate Student Academic Services office. Under normal circumstances, submission is expected at least six months before the Final Oral Examination (i.e., Defense). Deadlines for the submission of paperwork pertaining to doctoral programs are available online at [Deadlines for Completion of Degree Requirements.](#)” The

“Committee Appointment Form” is available through UAccess Student under GradPath forms. (<http://grad.arizona.edu/gsas/degree-requirements/doctor-philosophy#committee-appointment-form>)

“The Ph.D. degree is awarded upon satisfactory completion of the dissertation. An acceptable dissertation is one that the faculty judges to make sufficient contribution to financial knowledge that, with minor revisions, will be publishable in a top academic journal.

A *Final Oral Defense examination* of the dissertation (dissertation defense) in the major subject is schedule upon completion. Faculty committee members will require the student to display a broad knowledge of the chosen field of study and sufficient depth of understanding in areas of specialization. The examining committee must attest that the student has demonstrated the professional level of knowledge expected of a junior academic colleague.

The exact time and place of this examination must be scheduled through GradPath in advance. Final Oral Examinations should be scheduled during days when the university is in session and during normal business hours. Permission to hold examinations during University holiday closures or outside of normal university business hours may be granted by Graduate College.

The dissertation chair presides over the examination. The initial seminar portion during which the student presents the dissertation and entertains questions is open to the public. The committee's deliberation is closed to the public.

The expectation is that the Final Oral Examination will be at least one hour, but the entire proceedings may not exceed three hours. Members of the committee must be present for the entire examination. More instructions and links to forms are available on the Graduate College website (<https://arizona.app.box.com/v/grad-gsas-finaldefnsinstr>).

A PhD student's dissertation represents him or her, the department, and the University of Arizona in the international scholarly community. The work is important and worthy of professional presentation. Therefore, the UA Graduate College publishes a manual detailing the required format of the dissertation to ensure it meets these high standards. The manual is available at <https://grad.arizona.edu/gsas/dissertations-theses/dissertation-and-thesis-formatting-guides>. Please refer to this manual for specifications on the type, title page, table of contents, references and more.

### **Degree Awarded**

Your Doctor of Philosophy with a concentration in Finance degree will be awarded with the traditional University diploma schedule once the UA Graduate College has audited your degree to ensure you have met all requirements. The degree will be awarded on the official University of Arizona conferral date; please refer to the University of Arizona academic calendar. Diplomas may take 4 to 6 weeks to be processed and another 4 to 6 weeks to receive once mailed.

Your diploma will be mailed to your permanent address in UAccess Student. Please create a *diploma address* on UAccess Student if you wish to have your diploma sent to a different address than your permanent address. When verifying information for the UA Commencement program, please also ensure your name appears as you would like it to for the diploma.

### **Graduation and Walking**

When you have reached this point, the degree requirements have been completed and hearty congratulations are given and well deserved.

PhD Finance students are encouraged to participate in the University's and the Eller College Graduate Convocation ceremonies. The University-wide Commencement ceremony is held once a year, in spring. In February or March each year, the Graduate College will contact doctoral students who graduated for the preceding Fall and Winter, as well as expected graduates for the current year Spring and Summer who have met all requirements through the dissertation Appointment of Committee. Those students will be prompted to verify their information for the Commencement program.

Eller College holds two Graduate Convocation ceremonies, one in May and one in December. August graduates are eligible to walk in the May Eller College of Management Graduate Student ceremony. PhD students are individually hooded by their advisor or the department head. Contact the Director of Graduate Programs for more details.

**Exhibit A**  
**Course Sequence for Finance Department Ph.D. Students**

	Fall	Spring	Summer
Pre-Fall Session (end of July, first 3 weeks of August)	ECON 519, Math for Economists		
	SAS workshops (Accounting, Finance)		
First Year (24 units)	ECON 501A, Microeconomic Theory I	FIN 601, Financial Decision Making	<b><i>June: Qualifying Examination in Economics</i></b>
	ECON 501B, Microeconomic Theory II	FIN 695A, Investments	<b><i>Early August: Proposal due for second-year paper</i></b>
	ECON 520, Theory of Quantitative Methods in Economics	ECON 522A, Econometrics I	
	ECON 519, Math for Economists (continued from pre-semester)	FIN 525, Empirical Methods in Finance	
Second Year (18 units)	ECON 522B, Econometrics II	Finance, Economics, Math or Accounting elective	<b><i>November 1: Students needs to have conducted the main empirical tests of their second-year paper</i></b>
	FIN 602, Dynamic Asset Pricing	Finance, Economics, Math or Accounting elective	<b><i>June: Comprehensive Finance Exam</i></b>
	FIN 620A, Financial markets and Corporate Finance	Finance, Economics, Math or Accounting elective	
	ECON 597C, Teaching Methods in Economics	<b><i>February: Present second year paper proposal to faculty</i></b>	<b><i>August / September: Present completed second year paper to faculty</i></b>
Third Year* (12 units)	Finance, Economics, Math or Accounting elective	Finance, Economics, Math or Accounting elective	<b><i>Dissertation proposal/Oral exam</i></b>
	Dissertation (3 units)	Dissertation (3 units)	
Fourth Year* (12 units)	Dissertation (6 units)	Dissertation (6 units)	

\*Students receiving financial aid or not receiving a graduate assistantship may be required to take nine hours per semester to be considered full-time.