



Finance PhD Program Manual

2017

DEPARTMENT OF FINANCE AND BUSINESS ECONOMICS

This document describes the structure, processes, and expectations of the PhD program in finance. The document is a guide for students and faculty members. It fleshes out aspects of the program that are not explicitly discussed in university documents. Faculty members and students should consult the Marshall School of Business “Policies and Procedures Manual, Ph.D. Program” for a description of rules and regulations. Any conflict between this document and university documents is accidental, and where such conflicts exist, university documents prevail. Suggestions to improve this document are welcome. The document applies to students whose program of study begins in Fall 2017 and thereafter. Modifications to this document will be posted online and included in subsequent versions of this manual.

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August 2017*

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1 Overview

The PhD program in finance is intended to prepare students for a career as a researcher and teacher. During the course of their studies, students will transition from consumers of knowledge to producers and disseminators of knowledge. The first two years of the program focus primarily on acquisition of knowledge about the field of finance, and related areas that are important for finance research such as economics and statistics. Students complete core sequences in asset pricing and corporate finance, as well as a series of rotating courses on special topics. Beginning in the second year, the focus begins to shift to production of independent research. Students spend most of their time from this point conducting their own independent research, and learning related professional skills through attendance of seminars, presentation of papers, and the like.

A central premise of the program is that an effective way to learn how to do research is to do research. Based on this idea, the foundation of the learning experience for students is production of several scholarly research papers. Each year students are expected to produce at least one work of independent research, culminating in the dissertation and the job market paper. Students are expected to have produced at least three working papers that are publicly distributed by the time they enter the job market. The papers are conceived and executed with close supervision by faculty members.

Two papers are particularly important. At the end of the second year of study, each student produces and presents a research paper containing a novel result, empirical or theoretical, that makes a new contribution to knowledge in the field. The ability to produce such a paper is the primary hurdle that students must pass in order to progress to candidacy. The other important paper is the job market paper, usually the same as the dissertation. This fully developed piece of research should be suitable for publication in a top journal in the field.

Another premise of the program is that a successful research career requires not only the ability to conduct and produce good research, but also the ability to effectively communicate research findings. To develop these skills, students are required to make multiple presentations of their research before faculty members and other doctoral students. Students are also expected to teach an undergraduate or MBA class, under supervision of a faculty member.

2 Curriculum

2.1 Classes

Students are required to complete a series of classes. The total number of required units is specified by the university. A typical schedule over five years is shown in the table below. Classes indicated with an asterisk are required to graduate; others are electives.

Year 1	Classes	Units
Fall	GSBA 602. Selected Issues in Economic Theory I*	3
	GSBA 604. Regression and Generalized Linear Models for Business Research [or equivalent]	3
	Elective(s)	0-6
Spring	GSBA 612. Selected Issues in Economic Theory II*	3
	FBE 630. Fundamentals of Corporate Finance*	1.5
	FBE 633. Fundamentals of Asset Pricing*	1.5
	[Statistics or research design]*	3
	Elective(s)	0-6
Summer	Paper #1	
Year 2		
Fall	FBE 631. Advanced Corporate Finance*	3
	FBE 634. Advanced Asset Pricing*	3
	Elective(s)	0-6

Spring	FBE 670. Selected Topics in Finance Research #1*	1.5
	FBE 670. Selected Topics in Finance Research #2*	1.5
	GSBA 690. Tutorial on the Research Process	1.5
Summer	BUCO 637. Communication for Doctoral Students*	1
	Paper #2 (Screening Exam)	
Year 3		
	FBE 670. Selected Topics in Finance Research #N	
	Dissertation proposal (USC Qualifying Exam)	
	Paper #3	
Year 4		
	GSBA 794. Doctoral Dissertation	
	Job market paper	
Year 5		
	GSBA 794. Doctoral Dissertation	
	Dissertation	

2.2 Students with Previous Training in Economics and Statistics

Students with previous doctoral-level training in rare circumstances may be permitted to substitute a more advanced version of a required class.

- GSBA 602. Students who completed a doctoral-level microeconomics sequence before entering the program may be permitted to substitute another class for GSBA 602 if they covered the same material and can demonstrate mastery of the material. Demonstration of mastery may be based on course grades, completion of an exam, or other methods, as determined by the PhD Directors. The PhD Directors make the final decision whether or not a substitution is permitted.

- **GSBA 612.** GSBA 612 is a customized advanced microeconomics class that covers, among other topics, game theory, asymmetric information, and contracting. Students who studied economics at another institution before joining our program are unlikely to have covered all of these topics, unless they completed several courses, since most schools do not combine these topics into a single course. Except under unusual circumstances in which a student can demonstrate mastery of all course concepts, students must complete GSBA 612.
- **FBE 630, FBE 631, FBE 633, FBE 634.** All students must complete these four courses at USC. No substitutions or exemptions are allowed.

2.3 GPA Requirement

Students must maintain an average GPA of 3.5 in the core economics and finance classes (GSBA 602, GSBA 612, FBE 630, FBE 631, FBE 633, FBE 634). In addition, students are expected to maintain an overall GPA of 3.0; failure to meet this standard may result in withdrawal of finance support, among other things.

3 Papers

In order to advance in the program, students are expected to complete a series of papers, one at the end of each year. This section describes the expectations for each paper, and the process by which papers are assessed and students advance. A fundamental premise is that in order to succeed on the job market, students should have at least three credible working papers, and ideally at least one paper that is under advanced review at a good journal. *Three papers is a minimum – students who expect a strong job market outcome should plan to exceed this total.*

3.1 First-Year Paper

The first-year paper is written during the summer of the first year, under supervision of a faculty member. The paper consists of a literature review that discusses directions for future research; optionally, the paper also contains original research. The purpose of the paper is to familiarize the student with the literature in an area of interest, and begin the process of identifying promising directions for the student's own research.

Due: First class day of Fall Semester of second year (approximately August 21)

Description: The paper is expected to focus on a particular topic or area in finance. It should be approximately 3,000 to 6,000 words, with about three-quarters focused on literature review and one-quarter focused on directions for new research. The paper should be double-spaced and formatted following a leading journal in finance.

The literature review is expected to be based on 5-15 central or current papers in the area, and should summarize and connect the work, drawing out central themes and lessons. The literature review should go beyond summarizing the papers under review; it should attempt to draw general lessons from the work, assess which conclusions in the literature are reliable and which are questionable, highlight points of dispute, and critique shortcomings. Criticism is especially important because that is one way new projects are identified. For examples of how to write a survey, consult the following articles (of course, student papers are not expected to be as comprehensive and fundamental as these classics):

- Shleifer, Andrei and Robert W. Vishy “A Survey of Corporate Governance,” *Journal of Finance*, 1997.

- Harris, Milton and Artur Raviv, “The Theory of Capital Structure,” *Journal of Finance*, 1991.
- Jensen, Michael C. and Richard S. Ruback, “The Market for Corporate Control: The Scientific Evidence,” *Journal of Financial Economics*, 1983.
- Fama, Eugene F., “Efficient Capital Markets: A Review of Theory and Empirical Work,” *Journal of Finance*, 1969.

The section on new directions should identify open questions, and suggest directions for future research. Directions for future research should be specific, ideally in the form of a paper proposal; the proposal should be feasible in the sense that data have been identified or (in the case of theoretical research) the main modeling elements are clear. Students are encouraged to begin implementing their research ideas, if time permits, but this is not required for the first-year paper. The paper may not be coauthored.

Process: Each paper is supervised by a faculty member approved by the PhD Directors. Students should seek a faculty advisor once they determine their area of interest. The faculty advisor meets with the student and approves the list of papers to be reviewed. The faculty advisor must be selected, the main papers to be reviewed must be identified and approved, and the First-Year Paper Form must be submitted to the PhD Directors no later than June 1 of the first summer. The form should be completed by the student but submitted to the PhD Directors *by the faculty advisor*, not by the student.

Evaluation: The faculty advisor who supervises the first-year paper serves as one reviewer. The faculty advisor will select another faculty member to serve as a second reviewer, subject to approval of the PhD Directors. The two reviewers will read the paper, discuss their views, and assign an outcome: (i) FAIL; (ii) PASS; (iii) HIGH PASS. A paper is assigned a grade of FAIL if it fails to meet the minimum conditions of reviewing the literature and proposing new directions for research. A paper may receive a HIGH PASS if the section on directions for future research includes a new result, empirical or theoretical, that could become the basis for an original scholarly contribution. The faculty advisor reports the result of the review to the PhD Directors no later than the start of the third week of Fall Semester.

Advancement in the program: Based on assessment of the first-year paper and the student’s first-year grades, the PhD Directors determine whether the student may continue to the second year of the program. The expectation is that students will continue into the second year unless there is clear and compelling evidence that advancement is not warranted.

3.2 Second-Year Paper

The second-year paper (or “screening paper”) is written during the second year of the program, and polished and completed during the second summer. The second-year paper is expected to include independent research, and is the primary basis upon which students are assessed for continuing in the program. Students are expected to begin work on the second-year paper immediately at the start of the second year, if not earlier.

Due: First class day of Fall Semester of third year (approximately August 21)

Description: The second-year paper is expected to contain original research and be in the form of a scholarly paper. It should contain an introduction motivating the paper, a section describing the related literature, a description of data and methods (for empirical papers), and presentation of results. The paper should be formatted with sufficient rigor to meet submission standards at top journals in finance. Because successful students must be able to produce a flow of research, and because the process of producing new papers is valuable for learning, the second-year paper must be separate from the first-year paper. The paper may not be coauthored.

Process: The second-year paper is supervised by a three-person advisory committee selected by the student, upon approval of the PhD Directors. The chair of the committee and at least one other member must be FBE faculty members. The committee should be established by the sixth week of Fall Semester of the second year, and the appropriate form submitted to the PhD Directors.

Screening Exam: The screening exam has both a written and oral component.

- Both components will be assessed by a Screening Exam Committee appointed by the PhD Directors that is composed of five or more members, with at least three members holding appointments in FBE. In many cases, the Screening Exam Committee will be comprised of the Finance PhD Program Committee plus other faculty members. The chair of the student’s paper-writing advisory committee may not serve on his or her Screening Exam Committee.
- *Written Component:* The second-year paper serves as the written component.
- *Oral Component:* The paper is presented in fall semester in an open seminar involving both faculty members and students, typically at a Finance PhD Mini-Conference. During the presentation, participating faculty members question the student about the project. After the paper is presented, all faculty members present who read the paper cast an advisory vote on the quality of the work.

Faculty members who have not read the paper may not cast an advisory vote. Those in attendance include the members of the Screening Exam Committee as well as any other faculty members from across USC who wish to attend.

- *Assessment:* After reviewing both the written and oral component, the Screening Exam Committee meets, discusses the case, and assigns an outcome. The outcome on the screening exam is FAIL, PASS, or in rare circumstances HIGH PASS. In making the assessment, the Screening Exam Committee considers both the paper and presentation. Both the quality of the work to date and its prospects upon future revision are considered. The assessment is intended to determine a student's fitness to undertake independent research, and successfully write a dissertation. At a minimum, the paper should be of sufficient quality and care to be posted as a working paper on SSRN. As a very rough rule of thumb, students can imagine that the standard for passage is: *The paper meets the standards of a paper that would be accepted for the FMA Conference.* This is the minimum condition. In order to earn a HIGH PASS, a paper should meet the standards of acceptance for the AFA meetings.

Advancement in the program: If a student passes the screening exam, has earned a 3.5 GPA in core economics and finance classes, and is otherwise in good academic standing, he or she advances to the next stage of the program. If a student receives a failing assessment on the exam, then the student may not continue in the program. The PhD Directors may make an exception to this rule in extenuating circumstances. There is no provision to "retake" the screening exam.

3.3 Third-Year Paper

The third-year paper is written during the third year of program and presented at the Finance PhD Mini-Conference in the fall of the fourth year. The third-year paper is expected to contain independent research, and together with the second-year paper, gives the student two credible working papers.

Due: First class day of Fall Semester of fourth year (approximately August 21).

Description: The third-year paper must be distinct from the second-year paper. The third-year paper may build on or be a revision of the first-year paper. The third-year paper may be coauthored with faculty members or other students.

Evaluation: The paper will be presented at the start of fall semester in an open seminar involving faculty members and students, typically in the Finance PhD Mini-Conference.

At a minimum, the paper should be of sufficient quality and care to be posted as a working paper on SSRN. The student's faculty advisor, together with the PhD Directors, determine whether the paper contains original research, and constitutes a valid working paper. If so, the student advances in the program.

3.4 Fourth-Year Paper

The fourth-year paper is intended to be the third "serious" paper in a student's portfolio.

Due: First class day of Fall Semester of fifth year (approximately August 21).

Description: The fourth-year paper should be distinct from any previous papers. Together with the second-year paper and third-year paper, the fourth-year paper gives the student three working papers.

3.5 Dissertation Proposal/Qualifying Exam

The dissertation comprises one or more papers. The dissertation proposal is an event in which the student presents preliminary research and gathers feedback from faculty members about the potential of the research to comprise a dissertation, and directions to proceed. Typically, a student will later present more advanced versions of the dissertation in department seminars or workshops.

The writing and presentation of the dissertation proposal serves as the University's Qualifying Exam, and is governed by procedures established by the Marshall School and the University.

Due: Ideally, the dissertation proposal would occur near the end of the third year. However, in all cases, it must occur no later than the end of Fall Semester of the fourth year. If the proposal is not approved, another proposal must occur. A student must have an approved proposal no later than the end of Spring Semester of the fourth year.

Description: The dissertation proposal involves preparation of a written document in the form of a scholarly paper that outlines research findings and future directions, and presentation of the contents of that document to a faculty committee. A faculty committee selected by the student supervises and assesses the proposal. The committee must be constituted according to Marshall and University rules, and the appropriate forms must be completed and submitted to the Marshall School and University.

Process: See Marshall and USC guidelines.

4 Research Mentors and Assistantship

All doctoral students are assigned a research mentor during each semester of the program (sometimes called a “research assistant (RA) assignment”). These research relationships are intended to advance the student’s education by giving the student advice and experience in research projects led by the faculty. Ideally, the research relationships will lead to coauthored projects. Although described as an RA assignment, the research relationships are not intended solely to provide research assistance to faculty.

4.1 Assignment of Faculty Mentor

Each student will be assigned a research mentor (given an “RA assignment”) at the beginning of each year by the PhD Directors. Assignments are expected to last the entire year, but may be changed during the year if a different match seems appropriate. Assignments may continue over multiple years, or may last for only one year, as appropriate. At the start of each year, the PhD Directors solicit proposals from the faculty for research projects that involve doctoral students. Proposals should indicate the role of the student and the skills that will be learned. Projects that may lead to coauthorship are favored. The PhD Directors may share the proposals with any interested faculty members and students, in order to provide examples and promote best practices.

4.2 Activities and Responsibilities

The following schedule lists the typical faculty-student research activities and responsibilities for each year in the program. The schedule and nature of relationships for a student may vary somewhat from the typical case. Students and their faculty mentors are expected to hold regular meetings. Except as noted, students assigned as research assistants should not provide teaching-related assistance, such as grading, holding class sessions, or other administrative tasks.

- *Year 1.* The primary purpose of the relationship is to advise the student with his or her courses, studies, and overall strategies in the program. Students may assist with a faculty research project if it offers a good learning experience and does not

interfere with classes and other program requirements. Students may not assist with teaching, for example, grading or holding class sessions.

- *Year 2.* The primary purpose is for the student to gain research skills by assisting the faculty mentor with a research project. Acceptable activities include data collection, data cleaning, data organizing, coding, and estimation, for empirical projects, and checking models and proofs for theoretical projects. In some cases, the relationship may involve the student working on his or her own project, in which case the faculty member serves as an advisor. Students may not assist with teaching, for example, grading or holding class sessions.
- *Year 3.* The primary purpose is the same as in year 2, for the student to gain research skills by assisting the faculty mentor with a research project. Students will also be assigned to serve as a teaching assistant in one semester-long PhD course. Teaching assistant duties may include grading but should also include in-person class meetings with students in which the doctoral student lectures or solves problems.
- *Year 4.* The primary purpose is the same as in years 2 and 3, for the student to gain research skills by assisting the faculty mentor with a research project. The projects in year 4 may be continued from previous years, and ideally should involve coauthorship. Students may not assist with teaching, for example, grading or holding class sessions.
- *Year 5.* The purpose is primarily to advise the student on completion of the dissertation. In most cases, the student's dissertation chair will serve as research mentor. Ideally, students also continue coauthored work with the faculty member. Students may not assist with teaching, including grading or holding class sessions.

5 Teaching

As part of the degree requirement, students are required to serve as a teaching assistant for one class, and to teach one class, typically an undergraduate core class in finance (BUAD 306), microeconomics (ECON 351x), or macroeconomics (ECON 352x). In order to ensure that teaching a class is a valuable learning experience for the doctoral student, teaching is performed as part of a mentoring program. The premise of the program is that learning is most effective when it is structured and the doctoral student (“student-instructor”) is given guidance and feedback. Accordingly, student-instructors are mentored by both a faculty member and an educational designer on the Marshall staff.

5.1 Two Mentors

Each student will have two mentors:

- Faculty mentor. Typically, the dissertation chair serves as the faculty mentor. The PhD Directors may assign a different faculty member to serve as faculty mentor in place of the dissertation chair. The faculty member is listed as co-instructor in the registration system. The faculty mentor should consider nominating the student for Marshall and university teaching awards, if appropriate.
- Teaching coach. Lanore Larson (lanorela@marshall.usc.edu), an educational program designer and pedagogical consultant, serves as the teaching coach. If Ms. Larson is unavailable, the PhD Directors will identify an alternative.
- Before, during, and after the semester the student-instructor’s mentors should indicate completion of the various tasks below by signing the appropriate items on the Instructional Mentoring Form. The completed, signed form should be submitted to the PhD Directors once before the start of class (no later than one week before the first session) and once after the end of class (no later than one week after grades are submitted).

5.2 Preparing to Teach

Before the course begins, the student-instructor should do the following:

- a) Complete BUCO 637, usually in the summer of the second year. This is a Marshall School requirement.
- b) One semester in advance: Observe one or more sessions of the same-numbered class taught by a Marshall faculty member. For example, if the student will be teaching BUAD 306, he or she should observe one or more class sessions of BUAD 306 taught by a Marshall faculty member. (Because students may not know their teaching assignments long in advance, they should plan to observe classes well enough ahead of time to be prepared to teach.)
- c) Consult the Faculty Development Companion web site on MyMarshall. This site contains a wealth of information regarding instructional technology, syllabi, learning goals, and teaching resources.
- d) Meet with faculty mentor to discuss class and development of syllabus.
- e) Meet with teaching coach to discuss the class, development of syllabus, learning objectives, and related matters.
- f) Prepare the syllabus in consultation with both mentors. Both mentors should indicate approval on the Instructional Mentoring Form.

5.3 While Teaching

During the course of the semester, the student-instructor meets periodically with the faculty mentor to discuss the class. Weekly meetings are ideal initially, but there should be at least one meeting in the first half and one meeting in the second half of the semester. There should also be a final meeting after the class has ended.

In-class observation: During the first half of the semester, the faculty mentor attends at least one class session as an observer. The faculty mentor meets with the student-instructor afterwards, and offers feedback. *There should be both verbal and written feedback.* The feedback is confidential for the student-instructor. Also during the semester, the teaching coach attends at least one class session as an observer. The teaching coach meets with the student-instructor afterwards and provides both verbal and written feedback. The feedback is confidential for the student-instructor.

6 Academic Integrity

The finance PhD program shares USC's goal of maintaining the highest standards of integrity when conducting research and teaching. Integrity and honesty are fundamental to the pursuit of truth and knowledge. The following principles and standards are quoted or adapted from various university documents, particularly *Academic Integrity: A Guide for Graduate Students*.

Hallmarks of the academic community include respect for intellectual property and emphasis on individual work.

Because the definition and dissemination of new knowledge are at the heart of the university's mission, respect for intellectual property is critical. When the words, ideas, or discoveries of another are used in any academic exercise, the source must be cited clearly in association with the source material used. This respect must be maintained whether the source is published or unpublished documentary information, information provided through scholarly or professional presentation, or information resulting from the work of another student.

Likewise, while joint work may be permitted or required for particular assignments, faculty evaluation and degree conferral ultimately focuses on individual students. It is therefore of the utmost importance that collaborative work and individual accomplishments be clearly differentiated in any academic assignment.

The university expects that, by virtue of advanced academic standing and substantial previous experience in an academic environment, graduate students enter their studies with an awareness of the general standards for appropriate academic behavior.

The university also views academic dishonesty within the graduate community with the utmost seriousness, and when discovered, meets such dishonesty with serious consequences. Graduate students are urged to familiarize themselves with the specific standards articulated by the university in the current *SCampus*.

7 Forms

First-Year Paper Form

Advisory Committee for Second-Year Paper Form

Instructional Mentoring Form

**USC Marshall School of Business
Finance PhD Program**

FIRST-YEAR PAPER FORM

Name of Student:

Date:

Research Area:

List of Articles to Be Reviewed
(May be incomplete, but list at least five articles)

Name of Faculty Advisor:

Approved

Not Approved

Comments:

**USC Marshall School of Business
Finance PhD Program**

ADVISORY COMMITTEE FOR SECOND-YEAR PAPER FORM

Name of Student:

Date:

Advisory Committee

Chair:

Date:

Member:

Date:

Member:

Date:

Return this form, fully completed, to the PhD Directors no later than the sixth week of Fall Semester of the second year.

**USC Marshall School of Business
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INSTRUCTIONAL MENTORING FORM

PhD Student-Instructor _____

Course (# and semester) _____

- | | | |
|--|---------|-------|
| 1. Faculty mentor approval of syllabus | _____ | _____ |
| | Initial | Date |
| 2. Teaching coach approval of syllabus | _____ | _____ |
| | Initial | Date |
| 3. In-class observation by faculty mentor | _____ | _____ |
| | Initial | Date |
| 4. In-class observation by teaching coach | _____ | _____ |
| | Initial | Date |
| 5. Post-class discussion with teaching coach | _____ | _____ |
| | Initial | Date |

Return this form, fully completed, to the PhD Directors no later than one week after grades are submitted.