

MISSOURI DEPARTMENT OF HIGHER EDUCATION

FORM NP: NEW PROGRAM PROPOSAL FORM

Sponsoring Institution(s): Washington University

Program Title: Doctor of Business Administration

Degree/Certificate: degree

Options: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Delivery Site(s): Washington University, Danforth Campus

CIP Classification: 52.0201

Implementation Date: August 1, 2012

Cooperative Partners: \_\_\_\_\_

Expected Date of First Graduation: May 15, 2015

AUTHORIZATION

Name/Title of Institutional Officer:

Edward S. Macias, Provost

Signature  Date 3/13/12

Person to Contact for More Information:

Susan E. Hosack, Director, University Registrar

Telephone: (314) 935-5567

MISSOURI DEPARTMENT OF HIGHER EDUCATION

Form SE: STUDENT ENROLLMENT PROJECTIONS

Year	1	2	3	4	5
Full Time	2	3	5	5	5
Part Time	1	3	5	5	5
Total	3	6	10	10	10

Form PS: PROGRAM STRUCTURE

A. Total credits required for graduation: 72

B. Residency requirements, if any: 48

C. General education: Total credits: \_\_\_\_\_

Courses (specific courses OR distribution area and credits): **(SEE ATTACHED)**

\_\_\_\_\_ cr. \_\_\_\_\_ cr. \_\_\_\_\_ cr.

\_\_\_\_\_ cr. \_\_\_\_\_ cr. \_\_\_\_\_ cr.

D. Major requirements: Total credits: \_\_\_\_\_

\_\_\_\_\_ cr. \_\_\_\_\_ cr. \_\_\_\_\_ cr.

\_\_\_\_\_ cr. \_\_\_\_\_ cr. \_\_\_\_\_ cr.

E. Free elective credits: \_\_\_\_\_ (Sum of C, D, and E should equal A.)

F. Requirements for thesis, internship or other capstone experience: **(SEE ATTACHED)**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

G. Any unique features such as interdepartmental cooperation:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## MISSOURI DEPARTMENT OF HIGHER EDUCATION

### Form PG: PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS

Institution Name: Washington University  
Program Name: Doctor of Business Administration  
Date: 8/1/2012

(Although all of the following guidelines may not be applicable to the proposed program, please carefully consider the elements in each area and respond as completely as possible in the format below. Quantification of performance goals should be included wherever possible.)

#### Student Preparation (SEE ATTACHED)

- Any special admissions procedures or student qualifications required for this program which exceed regular university admissions, standards, e.g., ACT score, completion of core curriculum, portfolio, personal interview, etc. Please note if no special preparation will be required.
- Characteristics of a specific population to be served, if applicable.

#### Faculty Characteristics (SEE ATTACHED)

- Any special requirements (degree status, training, etc.) for assignment of teaching for this degree/certificate.
- Estimated percentage of credit hours that will be assigned to full time faculty. Please use the term "full time faculty" (and not FTE) in your descriptions here.
- Expectations for professional activities, special student contact, teaching/learning innovation.

#### Enrollment Projections (SEE ATTACHED)

- Student FTE majoring in program by the end of five years.
- Percent of full time and part time enrollment by the end of five years.

#### Student and Program Outcomes (SEE ATTACHED)

- Number of graduates per annum at three and five years after implementation.
- Special skills specific to the program.
- Proportion of students who will achieve licensing, certification, or registration.
- Performance on national and/or local assessments, e.g., percent of students scoring above the 50th percentile on normed tests; percent of students achieving minimal cut-scores on criterion-referenced tests. Include expected results on assessments of general education and on exit assessments in a particular discipline as well as the name of any nationally recognized assessments used.
- Placement rates in related fields, in other fields, unemployed.
- Transfer rates, continuous study.

#### Program Accreditation (SEE ATTACHED)

- Institutional plans for accreditation, if applicable, including accrediting agency and timeline. If there are no plans to seek specialized accreditation, please provide reasons.

#### Alumni and Employer Survey (SEE ATTACHED)

- Expected satisfaction rates for alumni, including timing and method of surveys
- Expected satisfaction rates for employers, including timing and method of surveys



OLIN BUSINESS SCHOOL

*Creating knowledge...Inspiring individuals...Transforming business.*

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Proposal for

**Doctor of Business Administration  
Degree Program**

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## TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
INTRODUCTION	3
I. OVERVIEW	4
II. NEED FOR REVIVING PROGRAM	5
III. PROGRAM REQUIREMENTS	7
IV. SELECTION OF CANDIDATES AND ADMISSION CRITERIA	10
V. RESOURCES AND SUPPORT	11
VI. PROGRAM ADMINISTRATION	12
VII. EVALUATION OF PROGRAM	13

## INTRODUCTION

The Doctor of Business Administration (DBA) program is a 72 credit hour doctoral degree in business designed to prepare individuals for advanced level careers in a variety of positions in the business industry. Candidates for a DBA express a serious interest research and wish to pursue graduate study beyond a master's level either on a part-time basis or full-time basis.

There are fundamental differences between the Ph.D. and the DBA degrees including the scope of study, the approach to research, and essentially the definitive outcome. The Ph.D. is intended for those who wish to pursue research careers in academia and the DBA is proposed as an extension of graduate study beyond a master's degree for those who wish to pursue research careers in corporations, consulting firms, or government agencies.

The resurrection of this degree program, that at one time was awarded through Washington University's business school, will serve to support advanced research study by intellectually serious non-academics and meet the increasing demand for high level research oriented scholars that can contribute to the challenges of critical thinking and research in a corporate platform.

The inaugural reintroduction DBA concentration will be in finance with the expectation that the other areas of concentration will follow as demand and resources emerge.

Appendix A addresses the curriculum details for the DBA in finance degree.

## I. OVERVIEW

### *Purpose*

The Doctor of Business Administration (DBA) program is designed to prepare experienced learners for advanced level careers such as: high level research positions in corporations (e.g., senior economists), banks or government agencies; research-oriented consulting positions; and faculty positions at colleges/universities that do not require a Ph.D. degree and/or value applied research.

### *Summary & Background*

The Doctor of Business Administration (DBA) degree was awarded by the business school at Washington University in St. Louis until 1976 as continuation of graduate education beyond a master's level degree. At that time, the DBA was phased out as trends established that a master's degree was sufficient for those heading into corporate positions and a shift towards earning a Doctor of Philosophy (PhD) degree for academia driven professions became more prevalent. Today, the revitalization of the Doctor of Business Administration (DBA) degree will fill the void that corporations, governments, and universities are facing by developing scholarly business practitioners who are trained in high-level critical thinking and research.

### *Mission*

The DBA program offers an advanced graduate degree in business to adult learners crossing traditional boundaries, while also providing the opportunity, under the guidance of Washington University faculty, for well-structured coursework as well as focused, independent scholarly reading and research on important issues relating to business.

### *Proposing Department*

The restoration of this degree is proposed by the Doctoral Programs Advisory Committee of Olin Business School. The responsible academic unit will be the Doctoral Programs Advisory Committee, consisting of faculty representatives of seven area disciplines of business studies and the doctoral programs office at the Olin Business School.

## II. NEED FOR REVIVING THE PROGRAM

### *Audience*

The Doctor of Business Administration degree will offer experienced students the opportunity for advanced research study by experienced students, and thereby strengthen the university's outreach and engagement of intellectually serious non-academics. It will prepare individuals for advanced level careers in a variety of positions in industry and academia that require the ability to conduct original research that is of a more applied nature than that which is targeted at the major academic journals. Candidates for a DBA express a serious interest research and wish to pursue graduate study beyond a master's level either on a part-time basis or full-time basis.

### *Doctor of Business Administration (DBA) vs. Doctor of Philosophy (Ph.D.).*

There are important differences between the Ph.D. and the DBA degrees, defined by scope of study, approach to research, and expected outcomes.

The Ph.D. is an advanced degree that prepares its candidates for research careers in academia. Ph.D. candidates are supported by graduate assistantships and stipends, and trained in both research and teaching--for careers in research, scholarship, and teaching in an academic field and department, typically in universities or other research-driven institutions. The successful Ph.D. student will have mastered a discipline and developed special expertise within that subject, determined in large part by one's ability to make original contributions to the fundamental knowledge in the discipline through research in the field in the form of a doctoral dissertation.

The DBA, by contrast, is intended for those who wish to pursue research careers in corporations, consulting firms, government agencies, or teaching positions in four-year colleges and universities that do not require a Ph.D. and focus less on publications in top academic journals. The DBA doctoral thesis is intended to be applied research, with a narrower scope than a typical Ph.D. dissertation, and focused more on generating, immediately applicable new knowledge for business rather than advancing the frontiers of fundamental knowledge through academic research. The DBA degree, offered through Olin Business School, provides an advanced program of study to a continuing-education audience.

### *Competence*

Olin Business School has access to a deep pool of faculty members that are experts in their respective fields and distinguished by their longstanding and active commitment to scholarly research, excellence in teaching and the highest level of service to

students, alumni, business and each other. Their quest for knowledge and foresight keeps them ahead of the curve on trends in marketing, entrepreneurship, international business, financial markets, and technology, thus fostering the cross-fertilization of knowledge and continuous innovation in business research. This program will help unite knowledge through creative partnerships with academic, business and technological institutions.

***Demand***

Today, there is a lack of reputable schools that offer doctoral programs that permit students to pursue industry-relevant applied research and also allows the flexibility of a part-time option to pursue such research. Currently, there is only one research university that we are aware of that offers a similar program in the United States: the Doctor of Management administered by Case Western Reserve. Graduates from Olin master's programs, including the Executive MBA, make up an ideal prospective audience for a Doctor of Business Administration degree. Based on inquiry from current business school students and input from industry representatives, it is estimated that we will receive 25-50 applications and initially admit 2-3 students. We estimate a larger number of applications over time as we establish visibility among potential applicants and expect to admit up to 10 participants in a steady state.

### III. PROGRAM REQUIREMENTS

To earn a Doctor of Business Administration degree from Olin Business School, a student must complete 72 semester hours of graduate course work or 48 semester hours after earning a relevant master's degree, maintain satisfactory academic progress, pass certain examinations or milestones, and write, submit, and defend a doctoral thesis. Coursework and milestone requirements will vary by area of concentration but remain within the program guidelines. See appendix (A) for detailed curriculum description for the DBA in finance degree.

#### *Degree Requirements*

A total of 72 units, comprising 48 units of graduate coursework beyond a master's degree are to be completed at Washington University - including required DBA seminars, required courses, other elective courses and 24 units of thesis research and writing. If one holds a master's degree or other graduate units, up to 24 units of graduate credit may be transferred from an Olin Business School master's program or from another university as authorized by the director of the doctoral programs.

#### Foundation Courses

Depending on their academic background and area of concentration, students may be required to enroll in foundation courses upon entering the DBA program. Credits for these courses will not be counted toward the DBA degree. The foundations courses are specific to the area of concentration.

#### Required Courses

The required courses provide the students with basic knowledge in all major aspects of their area of study. Specific coursework within each area will reflect a student's interests and concentration. Course selection and number of credits that are required will vary by area of concentration. Required courses are selected in consultation with and authorized by the area faculty and the Doctoral Program Advisory Committee.

#### Elective Courses

Elective course work composed from seminars in current masters programs at Olin Business School, and from other graduate-level Arts & Sciences courses authorized by the program director and approved by the course instructor. Additionally, after successfully passing area milestones (i.e., field exams) the student will write an extended research paper under the guidance of a faculty member in preparation for thesis proposal. The faculty member will advise the student throughout all the stages

of the thesis; proposal, research, writing, and defense - and serve on the thesis and defense committees.

#### Research (24 credits)

Research credits finalize the course work for the DBA degree from Olin Business School. Course work inclusive of Independent Studies, Research Assistantships, and Directed Readings will account for 12 credit units and doctoral thesis work accounts for 12 credit units.

#### Qualifying Exams

Comprehensive field examinations should be completed within six months of the conclusion of required coursework (normally within 2-3 years). Field exams are individually tailored by the area faculty and program director and evaluate the candidate's ability to integrate DBA course work, generally, and the concentration, specifically, within the overall framework of the program. Examination committee will be composed of the faculty advisor and two other faculty members.

#### Doctoral Thesis

Upon completion of 36 units of DBA coursework and passing the qualifying exams students will begin research that will lead to a doctoral thesis. The expectation is that the scope and depth of the doctoral thesis will be in between a master's level thesis and a Ph.D. dissertation.

The doctoral thesis advisory committee consisting of three tenured or tenure-track faculty (including the faculty advisor) will be selected in consultation with the faculty advisor and program director. Thesis proposal and Title, Scope, and Procedure Form should be prepared in consultation with the faculty advisor, then approved by the other two faculty members of the research advisory committee, and then by the program director.

The same three-member committee will conduct the thesis examination (oral defense) with an additional tenure – track faculty member outside of the student's area of concentration. The student will defend his/her thesis in an oral presentation to the committee. The committee will either assign a passing grade, a failing grade, or ask for revisions to be made in order for the student to receive a passing grade. A doctoral thesis should normally be completed within two years. The doctoral thesis will be filed electronically with the Graduate School of Arts & Sciences.

#### *Time line*

Once offered admission a student must maintain continuous enrollment throughout the program. Exceptions for medical or family reasons may be made by the program director. Students must remain in good standing by making satisfactory and timely progress in coursework, passing milestones as directed by their faculty advisor. Student academic performance is evaluated annually and must be maintained at a level consistent with the standards established by Olin Business School. Course work should be completed within 2-5 years; thesis within 3-4 years following the field exams. Continued enrollment beyond seventh year is only by permission of the Dean of Olin Business School.

#### **IV. SELECTION OF CANDIDATES AND ADMISSIONS CRITERIA**

##### ***Admission requirements***

Admission to the program does not require an earned master's degree. However, the program is designed to be cohesive as an extension of prior graduate work in a relevant field. Candidates for admission must demonstrate an exceptionally strong academic record, documented by academic transcripts, high GMAT/GRE scores and recommendations. Candidates must also have exceptionally strong writing and research potential, demonstrated in writing samples submitted with the application for admission.

##### ***Application Review***

Admission to the Doctor of Business Administration program is selective and particularly competitive. Similar to the Olin Ph.D. program, only a few students will be admitted per concentration each year. Candidates will be selected by area doctoral review committees, and recommended by area committee chair to the director of doctoral programs for approval.

## V. RESOURCES AND SUPPORT

### *University Resources*

Primary coursework is comprised from an existing pool of graduate courses currently offered through other Olin graduate programs. Faculty advisors and doctoral thesis committee members will be drawn from qualified tenured and tenure-track faculty at Olin Business School.

### *Regulatory Resources*

The Doctoral Programs Advisory Committee, listed for the 2012 academic year below, will be responsible for development and management of the DBA Program.

- **Anjan Thakor** (Chair), *Director of the Ph.D. Program and John E. Simon Professor of Finance*
- **Lingxiu Dong**, *Associate Professor of Operations & Manufacturing Management*
- **Hillary Anger Elfenbein**, *Professor of Organizational Behavior*
- **Richard M. Frankel**, *Beverly & James Hance Professor of Accounting*
- **Barton H. Hamilton**, *Robert Brookings Smith Distinguished Professor of Entrepreneurship*
- **Ohad Kadan**, *Associate Professor of Finance*
- **Anne Marie Knott**, *Professor of Strategy*
- **Dmitri Kuksov**, *Associate Professor of Marketing*
- **Nicholas S. Argyres** (Ex Officio), *Senior Associate Dean of Faculty and Vernon W. & Marion K. Piper Professor of Strategy*
- **Sarah Grantham** (Ex Officio), *Associate Director of Doctoral Admissions & Student Affairs*

### *Tuition*

Students will pay tuition for all courses and independent studies in which they are enrolled, plus a semester program fee. No new resources will be required, and tuition and program fees paid by students will more than cover all costs. Limited financial aid may be available from Olin Business School. Awards will be made by the program director on advice of the Olin Business School Financial Aid Advisor.

## **VI. PROGRAM ADMINISTRATION**

### ***Administrative***

The Doctor of Business Administration degree will be awarded by the Olin Business School. Administrative and operational elements of the program (admissions, registration, tuition payment, transfer credit, thesis committee authorization, and degree audit) will be coordinated between current Olin Business School graduate programs, following established practices for Graduate School programs offered through Olin Business School.

The current Director of the PhD Program, Professor Anjan Thakor, John E. Simon Professor of Finance, will also serve as the director of the Doctor of Business Administration Program. In consultation with the Doctoral Programs Advisory Committee he will be primarily responsible for development and management of the DBA curriculum, faculty recruitment, and course scheduling.

### ***Student Evaluation & Advising***

Student performance and progress will be evaluated annually by the director of the program and members of the Doctoral Programs Advisory Committee, examining grades in courses and reviewing comments solicited from graduate instructors.

All student support services will be coordinated by the associate director of doctoral admissions & student affairs. Academic advising will be the responsibility of the faculty advisor.

**VII. EVALUATION OF THE PROGRAM**

The program will be evaluated on an on-going basis by the Doctoral Programs Advisory Committee.

Submitted by:

Doctoral Programs Advisory Committee

Approved by:

Doctoral Programs Advisory Committee

The Faculty and Dean of Olin Business School

**DOCTOR IN BUSINESS ADMINISTRATION (DBA) IN FINANCE**

**OVERVIEW**

A Doctor of Business Administration in Finance will offer an advanced graduate degree in finance, which will prepare individuals for advanced level careers such as: high level research or consulting positions in corporations, banks, and governmental agencies; or teaching positions in academic institutions that do not require a Ph.D. degree or academic research.

Students will be able to take the program on either full-time or part-time basis.

**CONCENTRATION REQUIREMENTS**

The completion of the DBA in finance program requires a total of 72 credit hours of graduate course work in finance related topics or 48 semester hours after earning a relevant master's degree, maintain satisfactory academic progress, pass examinations and paper requirements, and write, submit, and defend a doctoral thesis. We expect students to finish the program within four years on a full-time basis, or 5-6 years on a part time basis.

**Curriculum**

Required studies include coursework and a written doctoral thesis as follows:

- 48 credit units for coursework.
- 24 credit units for a doctoral thesis.

***Foundation Courses***

Depending on their academic background, students may be required to enroll in foundation courses upon entering the Finance DBA program. Credits for these courses will not be counted toward the DBA degree. These courses are offered during August to entering MSF students. The foundations courses are:

FIN 5201 Finance I (1.5 credits)

ACCT 5001 Introduction to Financial Accounting (1.5 credits)

ACCT 501B Financial Accounting B (1.5 credits)

***Required Courses (26 credits)***

Appendix A  
Doctor of Business Administration  
in Finance  
Olin Business School

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The required courses provide the students with basic knowledge in all major aspects of finance: Investments and asset pricing of equity, fixed income, and derivatives; corporate finance (valuation and financing); and financial intermediation. The required courses also provide basic knowledge in microeconomics, financial statement analysis, and in statistical and empirical methods. Students are also asked to fulfill a teaching requirement, in order to prepare them for a teaching career.

The following courses are required for the completion of the Finance DBA program:

MEC 5400 - Managerial Economics (3 credits)

This course introduces the basic principles of economics and their applications to managerial decision-making. The course begins with the analysis of the decision making of individual consumers and producers. The course then examines how consumers and producers interact with one another in a variety of market settings ranging from situations in which firms have many competitors and few tactical options to those in which there are a small number of firms competing vigorously along several strategic dimensions. Applications covered include decision making in risky situations, pricing policies in firms, and the relationship between market structure and the strategic choices that are open to the firm.

MEC 5321 - Managerial Statistics (or an equivalent course in statistics) (2 credits)

Introduces the statistical methods that aid in analysis of business and economic data. The role of probabilistic concepts such as independent conditional probability, expectation, and variance, and probability models such as the Bernoulli, binomial, Poisson, and normal, are examined. Discusses the law of large numbers, and the Central Limit Theorem. Particular emphasis is placed on topics that relate to data collection, model formulation, estimation of model parameters, hypothesis testing, analysis of variance, and simple and multiple regressions for both cross-section and time series data.

FIN 532 – Investment Theory (1.5 credits)

This course covers the theory of risk and return in capital markets. Topics covered include the CAPM and factor models of asset pricing, measures of mutual fund performance evaluation, interest rates and fixed income securities.

FIN 525 Fixed Income Securities (1.5)

This course analyzes investment in bonds and related fixed-income instruments. Major topics are bonds, interest rate risk, and derivative securities. Bond topics include interest rate compounding conventions, yield curves, and forward interest rates. Risk analysis covers duration, convexity, and immunization. Derivative securities are analyzed using an option-theoretic approach to valuing interest rate contingent claims.

FIN 524 Options & Futures (1.5)

Focuses on futures with an introduction to options. Discusses forward and futures pricing, and the use of various futures contracts to hedge commodity price risk, interest risk, currency risk, stock portfolio risk, and other risk exposures.

FIN 534 - Adv. Corporate Finance I - Valuation (1.5)

This course considers a broad range of issues faced by corporate financial managers with respect to the valuation of projects, divisions, and entire companies. The prime focus will be on assessing the profitability of different business alternatives in a forward-looking sense. It will explicitly consider the impact of financing decisions on the valuation of business alternatives.

FIN 534B Adv. Corporate Finance II - Financing (1.5)

This course considers a broad range of issues faced by corporate financial managers with respect to the financing of investment opportunities. In this course, we turn to the right-hand side of the balance sheet as a direct follow up to the skills acquired in the Advanced Corporate Finance I - Valuation, a course that focused on the left-hand side of the balance sheet. The course is designed to be "hands-on", and we will heavily focus on direct applications of the theory of financing to business practice.

FIN 521 – Financial Intermediation (1.5 credits)

Discussion centers on the role of banking institutions and credit markets, the design of financial contracts and institutions and the public regulation of financial markets. After establishing a framework for analyzing financial institutions and markets, we turn to a current topic of special interest. Students will research and present a report advocating a particular point of view.

Appendix A  
Doctor of Business Administration  
in Finance  
Olin Business School

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ACCT 503 - Business Analysis – Financial Statements (1.5 credits)

In this course we use concepts from financial accounting, finance, and strategy to develop models used by financial analysts in valuing equity securities (although we will focus on equity valuation, our approach is applicable to issues faced by managers considering investment opportunities). We will discuss/review a variety of models, including the dividend model, the free cash flow model, the method of comparables/multiples, and the asset-based valuation model. These more traditional models will be contrasted with the residual income valuation model, a relatively recent valuation innovation.

ACCT 503B – Advanced Business Analysis – Financial Statements (1.5 credits)

This course involves the application of the analysis skills from ACCT 503 (accounting analysis, cash flow analysis, and financial ratio analysis) to a variety of reporting contexts. These include security analysis, credit analysis, valuation analysis, financial policy analysis, and investor communications. For this course, cases will be used as the primary vehicle for achieving the learning objectives.

MEC 537 – Data Analysis, Forecasting & Risk Analysis (3 credits)

This course develops the methods and techniques of econometrics that are of particular relevance to students of business and economics. A range of models, namely single equation regression models, time series models and models for discrete response data are studied. The purpose of building these models is described within the context of aggregate data, and micro data at the level of firms and individuals.

FIN TBA - \*Empirical Methods in Finance (3 credits)

New course offered to BSBA/MBA/MSF students. This course is currently under development for approval.

FIN 649 - Directed Reading in Finance (3 credits)

A program of readings developed by and with the approval of one or more members of the Finance faculty.

*Elective Courses (22 credits)*

Appendix A  
Doctor of Business Administration  
in Finance  
Olin Business School

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Electives will be chosen out of the following list of courses:

FIN 500J – Mathematical Foundations for Finance (1.5 credits)

This course covers mathematical foundations that are essential for advanced quantitative finance courses. The main contents include, but are not limited to, matrix algebra, constrained optimization, ordinary and partial differential equations, and numerical methods for optimization and solving nonlinear and differential equations.

FIN 538 – Stochastic Foundations of Finance (1.5 credits)

This is a foundations course, which is designed as a prerequisite to FIN 539, Mathematical Finance. It is therefore mainly designed for students in the Masters in Finance program who aim at quantitative positions in investment banks, hedge funds and consulting firms. While financial examples will be given, the primary focus will be on stochastic process and stochastic calculus theory. Students interested in applications of the theory are expected to take follow-on courses. Topics to be covered include: general probability theory; Brownian motion and diffusion processes; martingales; stochastic calculus including Ito's lemma; and jump processes.

FIN 550 - Numerical Methods and Optimization in Finance (1.5 credits)

The proposed is a project based course in which you learn how to apply numerical methods and optimization techniques to solve financial problems. The course will cover a variety of numerical methods and optimization techniques for both linear and non-linear problems with several examples of financial applications. Among the optimization methods (either exact or approximate solution techniques) covered will be: Linear and non-linear optimization, Integer programming, Stochastic Programming, Dynamic Optimization, and Robust Optimization. The numerical methods will mostly concentrate on finite difference schemes for partial differential equations as frequently encountered in financial applications.

FIN 532B – Data Analysis for Investments (1.5 credits)

The objective of this course is to obtain an in-depth understanding of some of the major empirical issues in investments. Based on recent research articles and cases, students are required to learn the facts, theories and the associated statistical tools

to analyze financial data. The topics for this course include models of stock returns, Bayesian and shrinkage estimations for expected returns and covariances, multifactor asset pricing models, GARCH models, principal components, asset allocation, stock screening, predictability, performance evaluation, anomalies, limits to arbitrage and behavioral finance.

**FIN 527 – Financial Markets (1.5 credits)**

In this class, we study important primary and secondary markets for financial assets. Our purpose, in addition to learning about existing institutional arrangements, is to develop a theoretical foundation which will help us understand why each market is structured as it is and the strategies of market participants. Our discussions of theory will include the role of private and public information, of ethics and reputation, of government regulation and self-regulation, and of strategic behavior. A theoretical framework is crucial to successfully participating in markets which continue to evolve at a rapid rate.

**FIN 523B - Mergers & Acquisitions (1.5)**

The course will provide an in depth view of the theory and empirical regularities of various corporate control transactions. Specifically, we will discuss valuation of target firms, possible sources of value creation, and various motives for mergers, tax consequences of mergers, legal issues in mergers, financing an acquisition, defensive tactics in hostile takeovers, going-private transactions and bidding behavior of acquirers. The method of instruction is a mix of lecture and case analysis.

**FIN 524B - Derivative Securities (1.5)**

Provides an in-depth analysis of valuation and trading strategies for options and other derivative securities which have applications across areas of finance such as hedging, swaps, convertible claims, mortgage payments, index arbitrage, insurance, capital budgeting and corporate decision making, and are responsible for many new innovations and developments of the financial markets.

**FIN 534C – Adv. Corporate Finance III – Frontiers of Valuation (1.5 credits)**

This course covers advanced topics in valuation. Main topics covered will be the valuation of private firms and young businesses, and the valuation of financial services firms such as banks and insurance companies. The course applies both

theory and practical valuation methods through the analysis of cases and real world examples.

MEC 540 - Money, Capital Markets & Economic Growth (1.5 credits)

An introduction to the U.S. monetary and financial system and its interaction with the overall economy. Among topics considered are the determinations of interest rates, the relationship between monetary and "real" sides of the economy including savings and investment decisions and inflation rates, and the role of capital markets in GDP and productivity growth.

FIN 530 – International Finance (1.5 credits)

Measuring and hedging exposures to exchange rate fluctuations is a central topic of this course. The relationships among spot and forward exchange rates, interest rates, and inflation rates are described. Additional topics include capital budgeting for international projects, international capital markets, and international portfolio diversification.

FIN 533 – Real Option Valuation (1.5 credits)

This is an applied course in capital budgeting under uncertainty and flexibility. Traditional NPV analysis assumes that corporate investments are "now or never" and that they are irreversible. However, most corporate projects have a great deal of flexibility in their timing, scale, etc. Our goal is to develop more advanced capital budgeting skills so that the student may attack real-world corporate investment decisions in a sophisticated way.

FIN 537 – Advanced Derivative Securities (3 credits)

This course focuses on implementation of models for pricing and hedging derivative securities in the equity, currency, and fixed-income markets. Students will learn to write programs in a programming environment such as MATLAB to implement the Black-Scholes model, binomial models, Monte-Carlo methods and finite-difference methods. The derivatives studied will include exotic equity and currency derivatives and caps, floors and swaptions. The goals of the course are to learn more about the various instruments that are traded, the various assumptions and methods that may be chosen in modeling them, and the importance of the assumptions in determining the prices and hedges that are chosen. The course will be especially useful to students pursuing careers in sales and trading who will

interact with research departments and students pursuing careers in asset management.

**FIN 539 – Mathematical Finance (3 credits)**

This course focuses on continuous-time derivative pricing and optimal security trading. In the first half of the course, students will learn how to derive partial differential equations and pricing formulas for various derivative securities including options with stochastic volatility, options with jump diffusion, and American style options. In the second half of the course, students will learn how to solve optimal portfolio selection problem with or without portfolio constraints through both the Hamilton-Jacob-Bellman equation approach and the martingale approach. The course is mainly designed for students in the Masters in Finance program who aim at quantitative positions in investment banks, hedge funds and consulting firms. The course might also be of interest to those who want a more theoretical approach to analyze embedded derivatives and risk management issues at corporations.

**FIN 551 – Advanced Fixed Income and Credit Risk Modeling (1.5 credits)**

This course is an advanced course in fixed-income. This means that a basic knowledge of fixed-income markets and concepts is assumed. The focus of the course is on the modeling of fixed-income securities. We will examine the behavior of the yield curve and discuss what this suggests for hedging liabilities. We will cover models of the term structure and of various types of fixed-income derivatives including caps, floors, and swaptions. We will also introduce credit-risk modeling, credit-default swaps, and collateralized debt obligations.

**FIN 552 – Fixed Income Derivatives (1.5 credits)**

This course builds on the materials developed in Fin 537, Advanced Derivative Securities. Here we will cover market-model pricing of LIBOR caps and floors, swap market model pricing of swaptions, Hull-White and Heath-Jarrow-and-Morton models, and the LIBOR market model for pricing swap derivatives via Monte Carlo techniques. We will also consider how to use these models to price various types of exotic interest rate derivatives commonly seen in practice.

**FIN 549H - Special Topics: Real Estate Finance (1.5 credits)**

Appendix A  
Doctor of Business Administration  
in Finance  
Olin Business School

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This course provides a broad introduction to real estate finance and investments. Topics include both equity and debt. We begin with an overview of real estate markets in the United States. On the equity side students will be introduced to the fundamentals of real estate financial analysis, including pro forma analysis and cash flow models, and elements of mortgage financing and taxation. Ownership structures, including individual, corporate, partnerships and REITS will also be covered. On the debt side, we examine a number of financing tools in the context of the evolution of the secondary mortgage market, both residential and commercial. Those wishing to pursue more advanced topics in real estate finance could follow this course with Fixed Income and Mortgage-Backed Securities.

**FIN 500Q - Risk Management (3 credits)**

Thorough overview of the risk management process and the use of derivatives to manage risk. Objectives are: provide a framework that managers can employ to make strategic risk management decisions; integrate risk management into a broader understanding of corporate financial policy; introduce techniques that managers can use to identify risk exposures; identify the basic derivative market instruments available to manage risk and the uses, advantages, and disadvantages of each; present analytical and statistical techniques that managers can employ to reduce exposures to particular risks; and present an overview of the oversight of the risk management process.

**ANY GRADUATE COURSE (500 and above)**

With the approval of the faculty advisor, director of DBA program and the instructor of the specific course.

***Research (24 credits)***

After successfully passing the field exam the student will write an extended research paper under the guidance of a faculty advisor. Prior to proposing their doctoral thesis students will enroll in Independent Studies and Research Assistantships. Once the student has defended their thesis proposal, doctoral thesis credits will account for the remaining 12 credit units. The expectation is that the scope and depth of the doctoral thesis will be in between a master's level thesis and a Ph.D. dissertation. The doctoral thesis committee will include three faculty members from within the student's area of concentration

**Appendix A**  
Doctor of Business Administration  
in Finance  
**Olin Business School**

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(including the faculty advisor) and one faculty member outside of the area of concentration. The student will defend his/her dissertation in an oral presentation to the committee. The committee will either assign a passing grade, a failing grade, or ask for revisions to be made in order for the student to receive a passing grade.

Appendix A  
Doctor of Business Administration  
in Finance  
Olin Business School

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## **ADMISSIONS**

To be admitted to the program students must complete an undergraduate degree. Completion of a graduate degree is preferred. Admission to the program will be selective and based on similar parameters used for screening in other Olin graduate programs. An applicant will be required to submit; a statement of purpose, academic transcripts from prior studies, GRE/GMAT score recorded within the last five years, and letters of recommendation.

### **Transfers credits**

Students with relevant graduate level degrees may be given credit toward their DBA degree based on their prior coursework at the discretion of the program academic director. Specifically:

- Students with a Masters of Finance degree (from Olin or other schools) may be given credit of up to 24 credit units.
- Students with other relevant graduate degrees (such as MBA, Master of Accounting, Master of Economics, Master of Statistics) may be given credit of up to 12 credit units toward their DBA degree.

## **PROGRAM ADMINISTRATION**

### **Student Evaluation, Milestones, and Advising**

Finance students in the DBA program will be required to write and present a first year paper.

After completing all the required courses the students will take a field exam. Students are required to pass this exam in order to begin working on the doctoral thesis. Student performance and progress will be evaluated each semester by the area faculty, the area doctoral committee advisor, and by the directory of doctoral programs.

### **Finance Faculty**

Long Chen, *Associate Professor of Finance*

Charles Cuny, *Senior Lecturer in Finance*

Philip Dybvig, *Boatmen's Bancshares Professor of Finance*

Armando Gomes, *Associate Professor of Finance*

Radhakrishnan Gopalan, *Assistant Professor of Finance*

Stuart Greenbaum, *Former Dean and Bank of America Professor Emeritus of Managerial Leadership*

Ohad Kadan, *Associate Professor of Finance*

Roni Kisin, *Assistant Professor of Finance*

Isaac Kleshchelski, *Assistant Professor of Finance*

Mark Leary, *Assistant Professor of Finance*

Asaf Manela, *Assistant Professor of Finance*

Todd Milbourn, *Hubert C. & Dorothy R. Moog Professor of Finance*

Matthew Ringgenberg, *Assistant Professor of Finance*

Anjan Thakor, *Director of Ph.D. Program and John E. Simon Professor of Finance*

Jialan Wang, *Assistant Professor of Finance*

Guofu Zhou, *Frederick Bierman & James E. Spears Professor of Finance*