

## University Senate TRANSMITTAL FORM

Senate Document #:	12-13-46
PCC ID #:	12031
Title:	Proposal to Establish a Master of Finance
Presenter:	William Idsardi, Chair, Senate Programs, Curricula, and Courses Committee
Date of SEC Review:	March 13, 2013
Date of Senate Review:	April 4, 2013
Voting (highlight one):	<ol> <li>On resolutions or recommendations one by one, or</li> <li>In a single vote</li> <li>To endorse entire report</li> </ol>
Statement of Issue:	The Robert H. Smith School of Business proposes to take its existing Master of Science in Business area of concentration in Finance and reclassify it as its own, stand-alone degree program, the Master of Finance. The context of the Master of Science in Business is important for understanding this proposal. Designed to provide an alternative to the generalist approach of the Master of Business Administration, the Master of Science in Business was created in 1978 to allow students to specialize in an academic field within business and management. Consequently, the Master of Science in Business has a structure that is uncommon for campus degree programs that have areas of concentration. The Master of Science of Business does not have a set of core requirements that is shared by each area of concentration. The curriculum of each area of concentration focuses on its own content; thus, the curriculum of the Finance area of concentration is comprised entirely of finance courses.
	In the past, the structure of the Master of Science in Business was sufficient for the purposes of the area of concentration in Finance. In recent years, however, it has become apparent that this structure poses unnecessary limitations for students, staff and faculty. Currently, the diploma only indicates the Master of Science in Business, not the actual focus of the curriculum. The general degree name also puts the School of Business at a competitive disadvantage when trying to attract students who are

	strongly interested in a degree in Finance. Graduates of the Finance area of concentration have also reported that they have encountered difficulty in getting recognition of their degree by foreign governments and institutions.
	Other than reclassifying the area of concentration as its own degree program, there are no other changes proposed. The new degree program will continue to be administered in the same manner as the area of concentration had been in the past, with the same faculty responsible for oversight. The curriculum will also remain the same. Consequently, there is no need for additional resources as a result of the proposed action.
	The Academic Planning Advisory Committee approved the proposal on February 11, 2013. The Graduate PCC committee approved the proposal on February 19, 2013. The Senate PCC committee approved the proposal at its meeting on March 1, 2013.
Relevant Policy # & URL:	Not Applicable
Recommendation:	The Senate Committee on Programs, Curricula, and Courses recommends that the Senate approve this new degree program.
Committee Work:	The Committee considered the proposal at its meeting on March 1, 2013. Vojislav Maksimovic, Dean's Chair Professor of Finance, and Michael Marcellino, Assistant Dean, Robert H. Smith School of Business presented the proposal. After discussion, the Committee voted unanimously to recommend the proposal.
Alternatives:	The Senate could decline to approve this new degree program.
Risks:	If the Senate does not approve the reclassifying the area of concentration as a degree program, the program and the students will continue to be at a disadvantage because of the generic name of their degree program.
Financial Implications:	There are no significant financial implications with this proposal.
Further Approvals Required: (*Important for PCC Items)	If the Senate approves this proposal, it would still require further approval by the President, the Board of Regents, and the Maryland Higher Education Commission.

## THE UNIVERSITY OF MARYLAND, COLLEGE PARK PROGRAM/CURRICULUM/UNIT PROPOSAL

• Please email the rest of the proposal as an MSWord attachment to <u>pcc-submissions@umd.edu.</u>	PCC LOG NO. 1203!
<ul> <li>Please submit the signed form to the Office of the Associate Prov for Academic Planning and Programs, 1119 Main Administration</li> </ul>	
College/School: Please also add College/School Unit Code-First 8 digits: 0120	12900
Unit Codes can be found at: https://hypprod.umd.edu/Html	Reports/units.htm
<b>Department/Program:</b> Please also add Department/Program Unit Code-Last 7 digits	: 1290103
Type of Action (choose one):	
☐ Renaming of program or formal Area of Concentration☐ Addition/deletion of formal Area of Concentration	New academic degree/award program  □ New Professional Studies award iteration  □ New Minor  □ Other  full University Senate for consideration.
Summary of Proposed Action:	
The Robert H Smith School of Business proposes launching a students with a rigorous understanding of and the ability to ap Masters of Science in Business with a concentration in Financoncentrations on the diplomas or transcripts and we are limit offering lower tuition rates for some concentrations). The creat opportunity to better reflect the degree being earned and provactivities with the market demands.	oply core finance principles. The school currently offers a ce (MSBF). Unfortunately there is no distinction between the ted in our ability to treat the programs differently (such as ation of this formal degree program will provide us with an
APPROVAL SIGNATURES - Please print name, sign, and of	late. Use additional lines for multi-unit programs.
1. Department Committee Chair	MIKE FAULKENDER
2. Department Chair Cliffeld Stell	MICHAEL BALL
3. College/School PCC Chair Type & Ware	JOYCE RUSSECC
4. Dean Grandalingan	J ANANO ANANDALINGAN
5. Dean of the Graduate School (if required)	
6. Chair, Senate PCC W. IDSARP/ CMS	V: 9 ///13
7. University Senate Chair (if required)	
8. Senior Vice President and Provost	

# PROPOSAL FOR NEW INSTRUCTIONAL PROGRAM UNIVERSITY OF MARYLAND AT COLLEGE PARK, MARYLAND MASTERS IN FINANCE (MFin)

#### ROBERT H. SMITH SCHOOL OF BUSINESS

DEAN G. "Anand" Anandalingam

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Award to Be Offered Fall 2013

#### I. OVERVIEW and RATIONALE

A. Briefly describe the nature of the proposed program and explain why the institution should offer it. [You may want to refer to student demand, market demand for graduates, institutional strengths, disciplinary trends, synergy with existing programs, and/or institutional strategic priorities.]

#### Goal and Contribution to the Strategic Plan

The Robert H. Smith School of Business proposes launching a Masters in Finance (MFin) program designed to provide students with a rigorous understanding of and the ability to apply core finance principles. The financial crisis on Wall Street and around the globe has forever changed the way we think about finance. The world of modern finance is now shaped by evolving regulation, globalization and a renewed focus on corporate responsibility. Now more than ever, financial planning and decision making depend on understanding and using the new ideas and tools required in sophisticated financial management. Students who complete the MFin degree will possess the knowledge and skills necessary to address the challenges confronting financial decision makers and financial market participants.

The Robert H. Smith School of Business houses one of the strongest academic finance departments in the world as well as the recently created Center for Financial Policy (CFP). The research and experience of the faculty are particularly suited to attract some of the brightest students in the world who are seeking a more thorough understanding of financial issues. Faculty and staff currently affiliated with the Robert H. Smith School of Business and the Center for Financial Policy hold appropriate degrees in finance, economics, and public policy that are relevant and necessary for the Masters in Finance degree.

The strategic plan of the Robert H. Smith School of Business states as its first objective the goal of "Growing future leaders to address global issues." The University of Maryland College Park mission statement sets a goal to "continue to build a strong, university-wide culture of graduate and professional education" and to provide knowledge-based programs and services that are responsive to the needs of the citizens of the state and the nation. Faculty and students in the Masters of Finance program will collaborate with financial institutions and regulators at the state, national, and international level to address current issues challenging financial markets. Given UMCP's proximity to the nation's capital, our facility in Washington DC, and the significant changes in financial regulation resulting from the Dodd-Frank financial reform bill, we are in a unique position to offer students opportunities unmatched by competitor institutions.

The School currently offers a Masters of Science in Business with a concentration in Finance (MSBF). However, the diploma does not state the word "finance" on it. This degree name will strengthen the recognition of the degree and increase its attractiveness to a worldwide applicant pool. Some of our MSBF graduates have informed us of difficulty in getting recognition of their degree by foreign governments and institutions because it is viewed as a degree in business and not in finance. Offering a degree with the word finance in the title will clarify the content of the knowledge our students obtain. The creation of this degree will also provide greater opportunities to be flexible within our portfolio of Masters of Science degrees to uniquely address issues within each discipline rather than pooling all of them under the same Masters of Science in Business degree that is currently offered.

The School currently offers a joint MBA-MSBF program for students and we would also seek to offer students the opportunity to enroll in a joint MBA-MFin program. Such an opportunity enables our MBA students to further distinguish themselves in the MBA marketplace and the fact that the joint program would likewise have the word "finance" in it would improve our ability to market these students.

This program is also an ideal path for some of our students to pursue PhD programs in finance. One graduate from our MSBF program is currently enrolled in our PhD program and our graduates have also placed into other PhD programs. Having the program entitled Masters in Finance will again likely improve the marketability of our students seeking to pursue a PhD specializing in finance.

#### **Market Demand for Graduates**

In light of the financial crisis, employers are looking for finance specialists who have a thorough understanding of financial concepts and the ability to rigorously apply these concepts within organizations. In particular, as international financial markets become more interdependent, international companies and foreign countries have significant demand for students with the skill set that our current MSBF offers. We anticipate this demand to increase due to the increased international acceptance and recognition of MFin program relative to an MSBF. Appendix 1 shows that the inclusion of the word "finance" in the degree name is standard for this type of degree.

#### **Student Demand**

Business schools are undergoing a significant shift in the applicant pool for Master's degree programs. Applications for traditional MBA programs that provide a general management focus have seen a sustained reduction nationwide. Contemporaneously, more students are seeking Master's degrees that specialize in a particular business field, particularly finance and accounting. In addition to the MSBF program that we launched three years ago, competitor institutions such as MIT (2008) and University of Texas at Austin (summer 2012) have similarly launched Master's degree programs in finance within the last five years. Institutions such as Georgetown University are currently exploring whether to enter this market and launch their own Master's in Finance programs. Such degrees are becoming an increasingly common offering at peer and aspirational institutions.

Student demand for a Master's in Finance program is extremely high. For the 2011-2012 academic year, we received 1,123 applications and enrolled 183 students in our MSBF program. For the 2012-2013 academic year, we received 1,507 applications. Admitted student statistics demonstrate the quality of students demanding this offering:

	Fall 2012	Fall 2011
Average GMAT	723	722
Average GPA	3.5	3.44

## B. How big is the program expected to be? From what other programs serving current students, or from what new populations of potential students, onsite or offsite, are you expecting to draw?

Current enrollment in our MS Business with a concentration in Finance (MSBF) is approximately 180 newly admitted students per year. Students take 30 credits in the program. Students have the ability to complete the program within one academic year but many choose to elongate the program to two academic years. Such elongation provides students an opportunity to seek an internship. We anticipate that students enrolled in the MSBF program will all instead enroll in the MFin program. Therefore, enrollment should remain at the current 150 student class size after creating the Masters in Finance degree.

Most of the students we attract to this program are international, primarily from East Asia. The strategic plan for this program seeks to expand domestic enrollment, primarily by targeting students receiving

Bachelor's degrees in mathematics, statistics, and physics who are looking for an opportunity to apply their skill set to the financial industry.

#### II. CURRICULUM

### A. Provide a full catalog description of the proposed program, including educational objectives and any areas of concentration.

The Masters in Finance degree (MFin) is a professional degree for students wishing to pursue careers in investment banking, money management, commercial banking, corporate finance, and financial market regulation. Core courses provide excellent fundamentals and a large number of electives will allow students the flexibility to become specialists or highly qualified generalists. They will learn how to analyze and direct the financial decisions of an organization, and gain a fresh understanding and a deep appreciation for the theoretical foundations of finance today.

The proposed MFin program offered by the Robert H Smith School of Business will provide students with:

- a) Comprehensive knowledge of foundational financial concepts, products, and financial market structure necessary for engaging in any form of financial analysis.
- b) In-depth understanding of estimating value creation on the part of private enterprises
- c) The ability to measure and manage trade-offs between risk and return
- d) Analytical skills including detailed financial modeling, the ability to design and empirically estimate financial relationships, and the creation of financial statements and forecasts
- e) Knowledge of the legal and ethical issues related to financial management and an understanding of the role of all stakeholders when capital allocation decisions are made
- f) An understanding of the regulatory structure of financial markets and the role that policymakers and regulators play in the efficient operation of financial markets
- g) Skills that will endure beyond the next business cycle and that will enable institutions to endure and thrive, even during times of economic downturn
- h) Expertise in financial management that will make our students valuable contributors to a variety of employers and organizations in diverse communities

## B. List the courses (number, title, semester credit hours) that would constitute the requirements and other components of the proposed program. Provide a catalog description for any courses that will be newly developed or substantially modified for the program.

Students will enter the MFin program with a Bachelor's degree. The proposed MFin program requires 30 credit hours comprised of core courses (14 credits) and electives (at least 16 credits). Completion of the degree is feasible within one academic year though many students may choose to spread their coursework over two academic years to offer an opportunity to gain experience from an internship during the summer.

While not required, some students may pursue the option of writing a master's thesis as part of reaching their 30 credit hours requirement. Others may take advantage of experiential learning opportunities for course credit. In both cases, such credit would be limited to 6 credit hours, be overseen by a faculty member, and follow the Graduate School's guidelines for the Master's degree with thesis. Appendix 2 provides a curriculum comparison of the Finance Programs offered by MBA ranked peers.

#### **Core Courses**

Course descriptions are provided below. All courses are 2 credits.

**BUSI 610 Introduction to Financial Accounting:** Provides an overview of financial accounting, periodic financial statements and the financial reporting process.

**BUSI 640 Financial Management:** Explores capital budgeting, security portfolio theory, operation and efficiency of financial markets, options pricing, financing decisions, capital structure, payout policy and international finance.

**BUFN740 Capital Markets:** Designed to deepen the foundations necessary to finance focused students, especially those intending to specialize in the quantitative areas of finance including investments, fixed income, and financial engineering.

**BUFN 750 Valuation in Corporate Finance:** Examines investment decisions by corporations, using various tools such as NPV, APV, and real option valuation. Particular attention is paid to cost of capital computation, pro forma cash flow statements, and other important elements of carefully executed evaluation of capital investments.

**BUFN 758N/O Financial Econometrics I/II:** Introduces the basic skills for analyzing financial data and testing financial models. The course includes a review of linear optimization for use in factor models, the statistical properties of asset returns, event studies, time series analysis and models of stochastic volatility. The course will include theory mixed with several applications.

**BUFN 761 Derivative Securities:** Introduces options and futures contracts, and presents an overview of why and how they are used. The course focuses on the valuation, and the measuring and management of risk exposure, of options and futures. Derivative securities on various underlying assets (equities, indices, commodities, foreign exchange, etc.) are analyzed, using different application contexts

The part-time curriculum consists of the same core courses. However, part-time students who are unable to take the Financial Econometrics classes may substitute for this requirement by taking at least four credits in the more quantitative finance electives upon approval of the Academic Director. Possible options include:

**BUFN 758Q Quantitative Investment Strategies:** Provides an advanced treatment of asset allocation strategies and performance evaluation. Quantitative techniques are applied to examine equity and fixed-income portfolio management strategies. The course provides a deeper understanding of the measurement of risk and its relationship to return, as well as of multi-factor models. Implementation issues, including statistical estimation, backtesting and portfolio construction, are covered, as are strategic versus tactical asset allocation, and performance evaluation.

**BUFN 765 Fixed Income Derivatives:** Introduces the use and valuation of fixed income assets such as exchange-traded bond futures and options, forward contracts on interest rates, fixed and floating rate bonds with embedded options, floating rate notes, caps, collars, floors, interest rate swaps, and mortgage backed securities. Tools include the application of binomial option pricing trees, and the analysis of stochastic yield curves.

**BUFN 766 Financial Engineering:** Introduces and applies various computational techniques useful in the management of equity and fixed income portfolios and the valuation of financial derivatives and fixed income securities. Techniques include Monte Carlo Simulation and binomial/lattice pricing models. Emphasis is on bridging theory with the design of algorithms and models that can be directly applied in practice.

#### **Elective Courses**

All courses listed below are 2 credit courses. In addition to these finance electives and upon approval of the academic advisor, students may take up to six credits in related fields.

**BUFN 751 Financial Strategy For Corporations:** An advanced course in corporate finance, focusing on the issues that firms face when they plan to raise external capital from financial markets. The focus is on the financing problems faced by mid-market to large firms and on capital raised from public markets. The forms of external finance vary from simple debt or equity to more complex securities that bundle with an element of risk management.

**BUFN 752 Financial Restructuring:** Examines alternative ways to increase firm value through corporate restructuring, including domestic and international acquisitions, spin-offs, carve-outs, and leveraged buy-outs. Focus is on theory, practice, and empirical evidence related to each of these forms of restructuring, and emphasis is placed on valuation analysis and strategic considerations.

**BUFN 753 Corporate Governance:** Examines corporate governance and its impact on shareholder value. Topics include conceptual foundation for corporate governance, the role and duties of the board of directors, indicators of board effectiveness and best practices, design features of executive compensation contracts, the significance and prevalence of stock options, the perverse incentives of stock options and controversy over compensation practices, corporate governance failures and anatomy of corporate scandals, the essentials of the Sarbanes-Oxley Act and other regulatory reforms.

**BUFN 754 Corporate Risk Management:** Explores the theory and practice of financial risk identification, measurement, and mitigation at financial and non-financial firms. Topics include hedging with options and futures, interest rate risk management, Value-at-Risk (VaR), Cashflow-at-Risk (CaR), Earnings-at-risk (EaR), credit risk, equity risk, commodities risk, exchange rate risk, and lessons from risk management disasters.

**BUFN 755 Entrepreneurial Finance and Private Equity:** Explores advanced topics in corporate finance, with major emphasis on how financiers help firms plan for growth and develop finance strategies firms use for different types of securities at different points in the industry's and firm's life. Securities will include private financing and placements, Venture Capital (VC), Initial Public Offerings (IPOs), Private Equity and Leveraged Buyouts.

**BUFN 758Q Quantitative Investment Strategies:** Provides an advanced treatment of asset allocation strategies and performance evaluation. Quantitative techniques are applied to examine equity and fixed-income portfolio management strategies. The course provides a deeper understanding of the measurement of risk and its relationship to return, as well as of multi-factor models. Implementation issues, including statistical estimation, backtesting and portfolio construction, are covered, as are strategic versus tactical asset allocation, and performance evaluation.

**BUFN 760 Applied Equity Analysis:** Applies financial concepts and tools to the analysis and valuation of equity securities. In addition to focusing on fundamental (DCF based) analysis of corporations, the course covers topics such as the EIC (Economy/Industry/Company) framework, financial statement analysis, relative value analysis, and contingent value analysis. Students will apply tools to value stocks and provide stock recommendations.

**BUFN 762 Fixed Income Analysis:** Focuses on understanding and valuing financial instruments whose market values are tied to interest rate movements. Develops tools such as discount functions, duration, convexity, and immunization to analyze the interest rate sensitivity and value of fixed income securities and portfolios. A variety of fixed income securities are examined, particularly zero coupon and coupon bearing bonds.

**BUFN 763 Portfolio Management:** Examines the theory and application of portfolio management techniques in detail, including the use of various asset classes in constructing efficient portfolios. Various risk and performance measurements for portfolios are examined, drawing on classic portfolio theory, as well as more recent index and factor models.

**BUFN 765 Fixed Income Derivatives:** Introduces the use and valuation of fixed income assets such as exchange-traded bond futures and options, forward contracts on interest rates, fixed and floating rate bonds with embedded options, floating rate notes, caps, collars, floors, interest rate swaps, and mortgage backed securities. Tools include the application of binomial option pricing trees, and the analysis of stochastic yield curves.

**BUFN 766 Financial Engineering:** Introduces and applies various computational techniques useful in the management of equity and fixed income portfolios and the valuation of financial derivatives and fixed income securities. Techniques include Monte Carlo Simulation and binomial/lattice pricing models. Emphasis is on bridging theory with the design of algorithms and models that can be directly applied in practice.

**BUFN 770 International Investment:** Examines foreign exchange markets (spot, forwards, futures, swaps, options), focusing on the use and valuation of these instruments. Other issues related to international security markets (equities and bonds/interest rates) and global portfolio management are discussed.

**BUFN 771 International Corporate and Project Finance:** Focuses on the role of financial management in the multinational firm, and the financing and management of international projects. Topics include international capital budgeting, global cost of capital, project financing, and the measurement and management of exchange rate exposure by corporations.

**BUFN 772 Bank Management:** Examines the economic role and regulation of banks and other financial institutions, and the structure of assets, liabilities and capital in these institutions. Tools are presented to analyze the various risks faced by banks, including interest rate risk, market risk, operational risk and off-balance sheet risk. Topics also include liquidity risk, liability risk, reserve management, deposit insurance, and capital requirements.

**BUFN 773 Institutional Asset Management:** Examines how money is managed by organizations such as university endowments, pension funds, mutual funds, hedge funds, and private equity funds. Emphasizes the incentives professional money managers face within the context of the organizational structure in which they operate. Particular attention will be paid to compensation structures and monitoring mechanisms.

#### **Sample Student Schedule**

Below are tables showing how a typical MFin student can complete the required coursework over a one-year period as a full-time student and over a two-year time period as a full-time or part-time student.

Student Schedule for Full-time MFin, Masters in Finance, completed in one year

Fall A	Fall B	Spring C	Spring D
BUSI 610*	BUFN 750*	BUFN 758N*	BUFN 758O*
BUSI 640*	BUFN 761 *	BUFN 754	BUFN 751
BUFN 740*	BUFN 760	BUFN 763	BUFN 765
	BUFN 762	BUFN 773	BUFN 766

Student Schedule for Full-time MFin, Masters in Finance, completed in two years

	Fall A	Fall B	Spring C	Spring D
First Year	BUSI 610* BUSI 640* BUFN 740*	BUFN 750* BUFN 761*	BUFN 758N* BUFN 754 BUFN 763	BUFN 7580* BUFN 751
Second Year	BUFN 755 BUFN 770	BUFN 760 BUFN 762	BUFN 773	

<sup>\*</sup>Core MFin Course

### C. Describe any selective admissions policy or special criteria for students selecting this field of study.

Applicants to the MFin program must have completed all of the requirements for a baccalaureate degree prior to their acceptance into the program, with particular emphasis on the student having sufficient mathematical background. All applicants must submit: Transcripts from all undergraduate and graduate institutions that have been previously attended, Graduate Record Examination (GRE) scores or the Graduate Management Admissions Test (GMAT) scores, a complete online application form that includes a written essay articulating qualifications and motivation for pursuing advanced education, two letters of recommendation from supervisors or from professors competent to judge the applicant's probability of success in graduate school.

In addition, an admissions interview may be required. After initial screening, the Admissions Office may select candidates for interviews which may be done in person or by telephone. Proof of English language proficiency (TOEFL or IELTS official scores) is also required unless the applicant has received an undergraduate or graduate degree from a select list of countries. For international student needing an F1 visa, a completed certification of finance form and supporting financial documentation are required.

In addition to Graduate School requirements, admission decisions for the MFin program will be based on the quality of previous undergraduate and graduate course work (if applicable), the strength of Graduate Record Examination scores or the Graduate Management Admissions Test scores, the relevance of prior work and research experience, and the congruence of professional goals with those of the program. Students should submit application materials for the fall semester by April 1. This program does not accept applications for Spring semester admission.

#### III. STUDENT LEARNING OUTCOMES AND ASSESSMENT

#### List the program's learning outcomes and explain how they will be measured and assessed

**Learning Outcome 1** Students will demonstrate a clear understanding of the basic concepts of

Corporate Finance, Capital Markets, Financial Accounting and Financial

Econometrics.

Measure: Students will be required to pass a core set of classes in each of these areas. Criterion: At least 90% of students will receive a rating of "Satisfactory" or better from

the Academic Director, who will review their performance in the core classes. The Academic Director will meet with students rated below "Satisfactory" to help improve their performance or determine their

continued participation in the program.

Assessment: Every Year, starting in the 2012-2013 academic year.

**Learning Outcome 2** Students will demonstrate critical reasoning and written communication

skills through the analysis of financial case studies.

Measure: Students must take at least one class that uses the case study method.

Criterion: At least 90% of students will receive a rating of "Satisfactory" or better from

the course instructor.

Assessment: Every Year, starting in the 2012-2013 academic year.

**Learning Outcome 3** Students will demonstrate oral communication skills through the presentation

of a financial case study.

Measure: Students must make at least one presentation of a case study.

Criterion: At least 90% of students will receive a rating of "Satisfactory" or better from

the course instructor.

Assessment: Every Year, starting in the 2012-2013 academic year.

Learning Outcome 4 Students will demonstrate their ability to work effectively with other

members of a team in the preparation of a group project..

Measure: Students must prepare group projects as part of a class.

Criterion: At least 90% of students will receive a rating of "Satisfactory" or better from

the course instructor.

Assessment: Every Year, starting in the 2012-2013 academic year.

**Learning Outcome 5** Students will demonstrate a deeper understanding of one or more areas of

Finance, related to their chosen career path or specialized plan of study

Measure: Students will be required to pass elective classes related to their educational

plan.

Criterion: At least 90% of students will receive a rating of "Satisfactory" or better from

the Academic Director, who will review their performance in the core

classes.

Assessment: Every Year, starting in the 2012-2013 academic year.

The Master in Finance degree is designed to be a flexible program that allows students to specialize in one area of finance or to become a generalist. All students are required to gain a basic understanding of each major area of Finance through taking core classes in Corporate Finance, Capital Markets, Financial Accounting, Derivative Securities, Corporate Valuation and Financial Econometrics. All students must

take electives to enhance this basic training. Some students may want to be generalists to give them more options for the future or to prepare for the Certified Financial Analyst certification. Others may want to do advanced work in preparation for a career track in Finance. The department has identified five career tracks and has made suggestions for how students can best prepare for these fields. The tracks are:

- o Corporate Finance
- Investment banking
- o Equity Analysis/Portfolio Management
- o Financial Engineering/Risk Management
- o Commercial Banking

The following table shows classes that will help students to achieve the desired learning outcomes.

Career Track ————————————————————————————————————	Corporate Finance	Investment Banking	Equity Analysis Portfolio Management	Financial Engineering Risk Management	Commercial Banking
751 - Financial Strategies for Corporations	**	**			**
752 - Corporate Restructuring	**	**			
753 – Corporate Governance	*		*		
754 – Corporate Risk Management	*			**	**
755 – VC, Private Equity	**	**	*		*
760 - Applied Equity Analysis	**	**	**		
762 – Fixed Income Analysis			**	**	**
763 — Portfolio Management			**	**	
765 - Fixed Income Derivatives				*	*
766 - Financial Engineering				**	
758Q - Quantitative Investment Strategies			**	*	
770 - International Investments	*	*	*	*	*
771 - International Corp/Project Finance	*	*			*
772 - Bank Management and Regulation		*			**
773 - Institutional Money Management		*	*	*	*
★★ - Should pro	bably take	*	- Nice to	have	

#### IV. FACULTY AND ORGANIZATION

A. Who will provide academic direction and oversight for the program? [This might be a department, a departmental subgroup, a list of faculty members, or some other defined group.]

Primary oversight of this program will be provided by a faculty member assigned as the director of the program. A committee of faculty members has been created to address issues including admissions, academic policies, student activities, and internship / placement opportunities. The program would also be overseen by the chair of the finance department and the Dean's office.

The finance department of the Robert H Smith School of Business currently has 28 FTE faculty. Twenty-one of these are tenure/ tenure track. All of these twenty-one faculty have doctoral degrees in economics, finance, or industrial engineering. Seven additional teaching faculty also have graduate degrees in economics, finance, or business.

#### Finance Faculty Expected to Teach in the Proposed MFin Program

Vojislav Maksimovic, PhD, Dean's Chair Professor of Finance and Department Chair

Teaching / research focus: corporate finance, industrial organization, international finance Course: To be Determined

Michael Faulkender, PhD, Associate Professor of Finance and MFin Director

Teaching / research focus: empirical corporate finance, risk management, executive compensation Course: BUFN 751 Financial Strategy For Corporations

Mark Taranto, PhD, Lecturer and MFin Academic Director

Teaching / research focus: empirical corporate finance

Courses: BUFN 762 Fixed Income Analysis BUFN 765 Fixed Income Derivatives BUFN 766 Financial Engineering

Gurdip Bakshi, PhD, Dean's Professor of Finance

Teaching / research focus: asset pricing, international finance, fixed income, derivatives

Course: BUFN 740 Capital Markets

BUFN 770 International Investment

Steve Heston, PhD, Professor of Finance

Teaching / research focus: asset pricing, derivatives, volatility, international finance

Courses: BUFN 770 International Investment

BUFN 771 International Corporate and Project Finance

Gordon Phillips, PhD, Bank of America Professor of Finance

Teaching / research focus: empirical corporate finance, industrial organization

Course: BUFN 755 Entrepreneurial Finance and Private Equity

Albert "Pete" Kyle, PhD, Charles E. Smith Chair Professor of Finance

Teaching / research focus: asset pricing, market microstructure

Course: BUFN 773 Institutional Asset Management

Lemma Senbet, PhD, William E. Mayer Chair Professor of Finance, Director: Center for Financial Policy

Teaching / research focus: corporate governance, financial institutions, international finance

Course: BUFN 753 Corporate Governance

#### Dilip Madan, PhD, Professor of Finance

Teaching / research focus: asset pricing, mathematical finance, derivatives

Course: BUFN 761 Derivative Securities

#### Alex Triantis, PhD, Professor of Finance

Teaching / research focus: corporate finance, risk management, real options

Course: BUSI 640 Financial Management

#### Haluk Unal, PhD, Professor of Finance

Teaching / research focus: financial institutions and banking, executive compensation

Course: BUFN 762 Fixed Income Analysis

#### Gerard Hoberg, PhD, Associate Professor of Finance

Teaching / research focus: corporate finance, industrial organization, security issuance

Course: BUFN 752 Financial Restructuring

#### Mark Loewesnstein, PhD, Associate Professor of Finance

Teaching / research focus: theoretical asset pricing, portfolio selection

Course: BUFN 763 Portfolio Management

#### N.R. Prabhala, PhD, Associate Professor of Finance

Teaching / research focus: empirical corporate finance, executive compensation

Course: BUFN 751 Financial Strategy For Corporations

#### Russ Wermers, PhD, Associate Professor of Finance

Teaching / research focus: empirical asset pricing, institutional money management

Courses: BUFN 763 Portfolio Management

BUFN 758Q Quantitative Investment Strategies

#### Laurent Fresard, PhD, Assistant Professor of Finance

Teaching / research focus: empirical corporate finance, international corporate finance

Course: BUFN 750 Valuation in Corporate Finance

#### Dalida Kadyrzhanova, PhD, Assistant Professor of Finance

Teaching / research focus: corporate finance, mergers and acquisitions, corporate governance

Course: BUFN 750 Valuation in Corporate Finance

#### Richmond Matthews, PhD, Assistant Professor of Finance

Teaching / research focus: theoretical corporate finance, corporate governance

Course: BUSI 640 Financial Management

#### Anna Obizhaeva, PhD, Assistant Professor of Finance

Teaching / research focus: market microstructure

Course: BUFN 773 Institutional Asset Management

#### Alberto Rossi, PhD, Assistant Professor of Finance

Teaching / research focus: empirical asset pricing, financial econometrics

Courses: BUFN 758N Financial Econometrics I BUFN 758O Financial Econometrics II

#### Georgios Skoulakis, PhD, Assistant Professor of Finance

Teaching / research focus: empirical asset pricing, financial econometrics

Courses: BUFN 758N Financial Econometrics I BUFN 758O Financial Econometrics II

#### Yajun Wang, PhD, Assistant Professor of Finance

Teaching / research focus: theoretical and empirical asset pricing, market microstructure

Course: BUFN 740 Capital Markets

#### Liu Yang, PhD, Assistant Professor of Finance

Teaching / research focus: empirical corporate finance

Course: BUSI 640 Financial Management

#### David Kass, PhD, Senior Lecturer

Teaching / research focus: corporate finance, industrial organization

Course: BUFN 752 Financial Restructuring

#### Elinda Kiss, PhD, Lecturer

Teaching / research focus: financial institutions, bank regulation

Course: BUFN 772 Bank Management

#### Sarah Kroncke, MBA, Lecturer

Teaching / research focus: investment banking, equity analysis

Courses: BUFN 760 Applied Equity Analysis BUFN 763 Portfolio Management

#### Cliff Rossi, PhD, Lecturer

Teaching / research focus: financial institutions, risk management

Courses: BUFN 754 Corporate Risk Management

BUFN 761 Derivative Securities BUFN 772 Bank Management

#### Steve Wallenstein, M.A., J.D., Professor of the Practice

Teaching / research focus: corporate governance, international finance

Courses: BUFN 755 Entrepreneurial Finance and Private Equity BUFN 771 International Corporate and Project Finance

#### Sue White, PhD, Lecturer

Teaching / research focus: corporate finance, taxes and payout policy

Courses: To be Determined

#### **Accounting Faculty Expected to Teach in the Program**

Michael Kimbrough, PhD, Associate Professor of Accounting Teaching / research focus: corporate financial reporting, disclosure Courses: BUSI 610 Introduction to Financial Accounting

### B. If the program is not to be housed and administered within a single academic unit, provide details of its administrative structure. This should include at least the following:

Not applicable. All classes will be housed and administered within the Robert H Smith School of Business

#### V. OFF CAMPUS PROGRAMS

A. If the program is to be offered to students at an off-campus location, with instructors in classrooms and/or via distance education modalities, indicate how student access to the full range of services (including advising, financial aid, and career services) and facilities (including library and information facilities, and computer and laboratory facilities if needed) will be assured.

In addition to holding classes on the UMCP campus, some sections of the program will meet at our DC location in the US Department of Commerce building, our Baltimore facility in the Baltimore BioPark, or our facility at the Universities of Shady Grove. Those facilities already contain adequate classrooms, computer facilities, study rooms, and administrative space for academic advising, career advising, and student activity support.

B. If the program is to be offered mostly or completely via distance education, you must describe in detail how the concerns in Principles and Guidelines for Online Programs are to be addressed.

Currently, the program is structured to be entirely delivered in a traditional classroom setting. Over time, we may evaluate online learning opportunities, but nothing is currently scheduled. Should we move towards some courses being offered online, all online courses would adhere to the policies and concerns outlined in the University of Maryland document, Principles and Guidelines for Online Programs.

<u>Program Development, Control and Implementation Would Be By Faculty</u> - The faculty would have overall control over the design, development, and will have the overall bulk of any online academic instruction. Smith school technical support personnel would be available, as well as agreements with the off-campus sites for technical support during classroom hours. Support will be available to faculty during course development, as well as during the offering of the program.

#### VI. OTHER ISSUES

A. Describe any cooperative arrangements with other institutions or organizations that will be important for the success of this program.

Not applicable. All aspects of the program from admissions to academic programming to career advising will be provided by the Robert H Smith School of Business. While the program will reach out to local companies and institutions for guest speakers, internship opportunities, experiential learning projects, and job placement, no particular relationship is pivotal to the success of the program.

## B. Will the program require or seek accreditation? Is it intended to provide certification or licensure for its graduates? Are there academic or administrative constraints as a consequence?

The University of Maryland's Robert H. Smith School of Business is already accredited by the AACSB (American Association of Collegiate Schools of Business). No accreditation is sought for this individual program.

#### VII. COMMITMENT TO DIVERSITY

### Identify specific actions and strategies that will be utilized to recruit and retain a diverse student body.

The Robert H. Smith School of Business community is multifaceted at every level – students, staff and faculty represent a diverse blend of backgrounds, nationalities, ethnicities and experiences. About a dozen Smith School and student clubs are focused on bringing members together who have similar interests in gender, nationality, religion, and sexual orientation.

To attract the most diverse population possible for the proposed Master of Finance program, Smith School recruiting staff will focus on domestic efforts. These efforts will be targeted at recruiting U.S. minorities and American women of all ethnicities.

#### Current efforts include:

- Representing Masters programs in U.S. MBA and Masters Fairs and Tours
- Representing Masters programs in International MBA and Masters Fairs and Tours
- Online Chats
- U.S. College Visits
- International College Visits
- GMASS-based Mailings
- GRE-based Mailings
- Direct Mail
- Email Campaigns
- Outreach to College and Campus Organizations and Clubs
- Participating in Career/Graduate Study Panels or Workshops
- Presentations at Professional Conferences
- Creation of "Leap Your Career Forward" for Current UMD Students Looking At MBA and Masters Study Post-Undergraduate Studies (An Annual Event)
- Advertising in UMD Campus Newspapers
- Masters Only Education Fairs (Fall And Spring) Throughout the U.S.
- Participation in a Masters-focused Business School Alliance
- Participant in Graduate Business Education Events Targeted for Underrepresented Populations, Particularly U.S. Minorities and Women

#### Future efforts include:

- Including Master's Level Programming in Marketing Content Targeted to U.S. Military/Veterans
- Outreach to College Organizations in the Washington, D.C. Area
- Enhancement of Website for All Masters Programs
- Inclusion of Spotlight and Vignettes of Masters Alumni and Current Students who Reflect Diversity
- Participation in Events Targeted for Women Seeking Graduate Study (General And Non-MBA Based Events)
- Social Media and Online Advertising within U.S. Markets
- Partnerships with Academic Testing Centers and Overseas Advisors For International Graduate Study
- Marketing Targeting Young UMD Alumni and Young University Of Maryland System Alumni

#### VIII. REQUIRED PHYSICAL RESOURCES

The proposed Masters in Finance (MFin) program replaces the existing Masters of Science in Business with a concentration in Finance (MSBF) degree currently offered. The proposed program can be implemented in accordance with Section 11 206.1 in which programs developed under this provision can be implemented within existing resources of the campus. In proceeding with the submission of this program, the institution's president certifies that no new general funds will be required for the implementation of this master's-level program.

A. Additional library and other information resources required to support the proposed program. You must include a formal evaluation by Library staff.

The evaluation is attached.

B. Additional facilities, facility modifications, and equipment that will be required. This is to include faculty and staff office space, laboratories, special classrooms, computers, etc.

As this proposed program replaces a current program and we do not at this time anticipate growing the program beyond its current scale, no additional facilities or facility modification is required. The School has adequate space in Van Munching Hall and in our DC location to house current faculty and students in the proposed program. No additional classrooms or computer laboratories are required.

C. Impact, if any, on the use of existing facilities and equipment. Examples are laboratories, computer labs, specially equipped classrooms, and access to computer servers.

See response to VIII.B above.

#### IX. RESOURCE NEEDS and SOURCES

Describe the resources that are required to offer this program, and the source of these resources. Project this for five years. In particular:

A. List new courses to be taught, and needed additional sections of existing courses. Describe the anticipated advising and administrative loads. Indicate the personnel resources (faculty, staff, and teaching assistants) that will be needed to cover all these responsibilities.

As this proposed program replaces a current program and we do not at this time anticipate growing the program beyond its current scale, no additional courses or changes in advising or administrative workload is required.

B. List new faculty, staff, and teaching assistants needed for the responsibilities in A, and indicate the source of the resources for hiring them.

Faculty resources of the Robert H Smith School of Business and in particular the finance department of the School (as described herein) are adequate to cover the size of the proposed MFin program. Approval of this proposal would not alter the responsibilities of the faculty beyond those already generated by the MSBF program that this proposal seeks to replace.

C. Some of these teaching, advising, and administrative duties may be covered by existing faculty and staff. Describe your expectations for this, and indicate how the current duties of these individuals will be covered, and the source of any needed resources.

As described above, teaching, advising, and administrative duties will be handled by existing faculty members (who are already teaching and conducting research on finance topics).

D. Identify the source to pay the for the required physical resources identified in Section VIII. above.

No additional resources are required.

E. List any other required resources and the anticipated source for them.

Not applicable.

F. Provide the information requested in <u>Table 1</u> and <u>Table 2</u> (for Academic Affairs to include in the external proposal submitted to USM and MHEC).

Given that this degree replaces a degree already offered, there are no incremental revenues or expenses.

<u>Appendix 1: Peer Comparisons – Degree Name of Finance Program offered by MBA Ranked Peers</u>

MBA Ranking	University	Degree Name of Finance
		Program
#4	MIT	Masters in Finance
#7	UC Berkeley	MFE
#15	UCLA	MFE
#17	University of Texas	MS Finance
#18	CMU	MS – Computational Finance
#25	University of Wisconsin	Quantitative MFin
#25	Vanderbilt University	MS in Finance
#25	Ohio State University	Specialized Master - Finance
#37	University of Rochester	MS in Finance
#37	Boston College	MS Finance
#43	Tulane University	Master of Finance
#44	Michigan State University	MS Finance
#44	University of Florida	MS Finance
N/A	American University	MS Finance
N/A	George Washington University	MS Finance
N/A (No MBA)	Princeton University	Masters in Finance

## <u>Appendix 2: Peer Comparisons – Curriculum Content Comparisons of Finance Programs offered by MBA Ranked Peers</u>

Key:

#### **Bold** - Class currently offered by UMCP as part of our core.

Italics – Class currently offered by UMCP but not as part of the core.

University Degree MBA Ranking	Curriculum/Required Classes	Prerequisites	Comments
MIT	Finance Theory I	Suggested Math	Despite its reputation,
Masters in Finance	Corporate Fin Accounting	Background:	this MIT degree is a
#4	Analytics of Finance	Linear Algebra	general one
		Calculus	comparable to ours.
	Electives:	Probability	While students could
	Corporate Risk Management	Statistics	get a more quantitative
	Investments	Computer Literacy	degree there, it is not
	Advanced Corporate Finance		required. They actually
	Options and Futures		have fewer
	Fixed Income		requirements.
	International (Cap Mkts)		
	International (Corp)		
	Analytics of Finance II		The Financial
	Business Analysis/Fin		Engineering class looks
	Statements		different from ours,
	Mergers & Acquisitions		with teams assigned to
	Valuation		tackle a problem for a
	Applied Fixed Income		sponsoring
	Strategies		organization.
	Data Technologies for Quant		
	Fin		
	Retirement Finance		
	Learning Project		
	a. Financial		
	Engineering		
	b. Financial		
	Management		
	c. Research Practicum		

University	Curriculum/Required	Prerequisites	Comments
Degree	Classes		
MBA Ranking			
UC Berkeley	28 units to graduate. 16	Programming	Berkeley's MFE is a very
MFE	units required,	experience in C or C++	different degree from
#7			ours. It is not aimed at
	Investments & Derivatives	Background in Calculus,	generalists, but is
	<b>Empirical Methods in</b>	Linear Algebra,	specifically designed for
	Finance	Differential Equations,	students who want to
	Intro to Stochastic Calculus	Statistics and	work as financial
	Financial Institutions	Numerical Analysis	engineers who already
	Seminar		have a strong
	Derivatives: Quant	Training in Finance	quantitative
	Methods		background. Many of
	Fixed Income Markets	Language Skills	their students already
	Credit Risk Modeling		have a MS in
	Accounting/Taxation		engineering or a PhD in
	Derivatives		a quantitative field.
	Financial Institutions		
	Seminar II		The first course
	Fin Risk Management		combines our Capital
	Advanced Comp Finance		Markets class and our
	Fin Innovation in Global		Derivatives class.
	Mkt		Quant Methods has
	International		some overlap with our
	Equity/Currency		Fin Engineering class,
	Topics in Fin Eng		but also emphasizes
	Required Internship		continuous time
	Finance Project		models. Some of the
	ABS Markets		material in the Credit
	Dynamic Asset		Risk course is covered
	Management		in Fixed Income
	Behavioral Finance		Derivatives and Risk
	Real Options		Management. Some of
			the topics in ABS
			Markets are covered in
			Fixed Income
			Derivatives.

University	Curriculum/Required	Prerequisites	Comments
Degree	Classes		
MBA Ranking			
UCLA			UCLA's MFE is very
MFE			similar to the one at
#15			Berkeley. Originally, it was a joint program between the two schools.

University	Curriculum/Required	Prerequisites	Comments
Degree	Classes		
MBA Ranking			
<b>University of Texas</b>	Required		It looks like Texas has a
MS Finance	Financial Management		lockstep program
#17	Valuation		which incorporates
	Financial Accounting		many of the classes
	Statistics for Fin		that we offer. It
	Applications		includes two
	Security Analysis		practicums, but does
	Practicum		not offer the flexibility
	Investments		that we have and may
	Advanced Corporate Finance		be a little less
	Financial Mkts and		quantitative.
	Institutions		
	Derivatives		
	Fixed Income		
	Advanced Valuation		
	Practicum II		
	Raising Capital		
	Alternative Investments		
	Risk Management		
	Global Fin Strategies		

University	Curriculum/Required	Prerequisites	Comments
Degree	Classes		
MBA Ranking			
CMU	It is unclear what is		This program is
MS-Computational	required. The program		nothing like ours. It is
Finance	offers 25 courses. I see no		sponsored jointly by
#18	corporate classes offered.		four different schools
	There are many capital		within the university.
	markets classes that look		
	extremely quantitative.		
	There are also a number of		
	mathematics classes, IT		
	classes and economics		
	classes. There are two		
	classes on Stochastic		
	Calculus		

University	Curriculum/Required	Prerequisites	Comments
Degree	Classes		
MBA Ranking			
University of	Core		Wisconsin's program
Wisconsin	Microeconomics		seems lighter than
<b>Quantitative MFin</b>	Econometrics I & II		ours on finance and
#25	Investments		heavier on
	Futures and Options		mathematics and
	Derivatives		statistics than ours. It
	Theory of Finance I		is more quantitative,
	Independent Study Project		but does not look very
	Brownian Motion (Math)		strong in terms of
	Computational Math		finance training.
	(Math)		
	Electives		
	Security Analysis		
	Intermediate Investments		
	Courses offered by		
	Economics, Statistics,		
	Mathematics and Real		
	Estate-		

University	Curriculum/Required	Prerequisites	Comments
Degree	Classes		
MBA Ranking			
Vanderbilt University	Required		The degree looks very
MS in Finance	Financial Economics I & II		similar to ours.
#25	Financial Accounting		
	Econometrics I & II		
	Financial Modeling		
	Corporate Valuation		
	Derivatives		
	Electives		
	Financial Reporting		
	Game Theory		
	Corp Fin Policy		
	International Markets		
	International Corporate		
	Equiies Markets		
	Bond Markets		
	Financial Institutions		
	Real Estate I & II		
	Active Portfolio Analysis		

University	Curriculum/Required	Prerequisites	Comments
Degree	Classes		
MBA Ranking			
<b>Ohio State University</b>	Required		Ohio State requires
Specialized Master-	Economics I & II		MBA type classes
Finance	Data Analysis I & II		outside of Finance and
#25	Intro Finance		offers courses very
	Leadership		similar to ours. We
	Corporate Finance		have more
	Derivatives		requirements. They do
	Electives		not offer Econometrics,
	Standard electives in		and we do not offer
	Corporate Finance,		Real Estate classes.
	Investments, Risk		
	Management and Real		
	Estate.		

University	Curriculum/Required Classes	Prerequisites	Comments
Degree		•	
MBA Ranking			
University of	Required without MBA	Students without an	Rochester is one of
Rochester	MBA Economics	MBA must start in the	our closest peers. It is
MS in Finance	MBA Statistics	Summer and take	a generalist degree.
#37	Financial Accounting	foundation classes	They require more
			core classes outside of
	Required		finance and fewer
	MBA Accounting		inside finance.
	Capital Budgeting		
	Economic		
	Theory/Organizations		
	Managerial Accounting		
	Investments		
	Corporate Finance		
	Business Communications		
	Electives		
	Accounting/Economics		
	classes		
	Corporate Financial Policy		
	Derivatives		
	Financial Institutions		
	Cases in Finance		
	Investment Mgt/Trading		
	Strat		
	International Finance		
	Financial Information		
	Systems		
	Fixed Income Securities		
	Advanced Financial		
	Economics		
	Advanced Topics/Corporate		
	Governance		

University	Curriculum/Required	Prerequisites	Comments
Degree	Classes		
MBA Ranking			
<b>Boston College</b>	Required	Calculus	Boston College offers
MS Finance	Investments	Linear Algebra	an MSF that looks
#37	Corporate Finance	Statistics	pretty standard.
	Financial Institutions	Accounting	
	Financial Econometrics		However, they also
	Corporate Finance Theory		offer a quantitative
	Portfolio Theory		track that includes PhD
	<b>Derivatives/</b> <i>Risk</i>		level courses in
	Management		economics and
	Fixed Income		finance.
	Financial Policy		
	Electives		
	These were not listed on the		
	page		

University	Curriculum/Required	Prerequisites	Comments
Degree	Classes		
MBA Ranking			
<b>Tulane University</b>	Required		The degree looks very
Master of Finance	Financial Accounting		similar to ours.
#43	Corporate Finance		
	Financial Communications		
	Valuation		
	Investments		
	Fixed Income		
	Derivatives		
	Equity Analysis		
	Electives		
	Cases in Real Estate		
	International Finance		
	Real Estate Planning		
	Private Equity and VC		
	Student Managed Fund		
	Energy/Environmental Econ		
	Energy Markets		

University	Curriculum/Required	Prerequisites	Comments
Degree	Classes		
MBA Ranking			
Michigan State	Required		There is no strong
University	30 Credits including 18		core, and they do not
MS Finance	Credits in Finance. It must		offer a large number
#44	include Managerial Finance.		of electives.

University	Curriculum/Required	Prerequisites	Comments
Degree	Classes		
MBA Ranking			
<b>University of Florida</b>	It is difficult to see the		It looks like Florida's
MS Finance	requirements, however,		program is aimed at
#44	they offer standard MBA		combined BS/MS
	type classes.		students. The degree
			looks less quantitative
			than ours.

University	Curriculum/Required	Prerequisites	Comments
Degree	Classes		
MBA Ranking			
American University	Required		American requires
MS Finance	Financial Management		courses similar to our
N/A	Financial Modeling		core and to our MBA
	<b>Derivatives</b> /Risk		level courses. It does
	Management		not look like it offers
	Quantitative Methods I & II		the same level of
	Fixed Income		flexibility nor does it
			offer as many
	Electives		quantitative classes.
	Similar to our MBA electives		

University	Curriculum/Required	Prerequisites	Comments
Degree	Classes		
MBA Ranking			
George Washington	Required		GW is a lockstep
MS Finance	Financial Econometrics		program that hits
N/A	Global Financial Markets		many of the same
	I-Banking Cases		themes as our
	<b>Corporate Finance</b>		program. It is less
	Investments		flexible, and does not
	Fin Eng and Derivatives		allow for deeper
	Market Regulation		study as our program
	Financial Theory and		does.
	Research		
	Real Estate/Fixed Income		
	Financial Institutions		
	Cases in Financial Modeling		
	Advanced Fin Econometrics		

University	Curriculum/Required	Prerequisites	Comments
Degree	Classes		
MBA Ranking			
Princeton University	Core		The Asset Pricing
Masters in Finance	Financial Investments		classes are more like
N/A (No MBA)	Asset Pricing I		our PhD level classes.
	Regression and Time		
	Series		Asset Pricing I:
	Corp Fin/Fin Accounting		
	Asset Pricing II		Topics include: no
	Financial Econometrics		arbitrage, Arrow-
			Debreu prices and
	Electives.		equivalent martingale
	Some electives are similar		measures, security
	to our classes. Many are		structure and market
	more quantitative.		completeness, mean-
			variance analysis, Beta-
			pricing, CAPM, and
			introduction to
			derivative pricing.
			Asset Pricing II
			Stochastic calculus and
			stochastic differential
			equations Topics
			include Brownian
			motion, martingales,
			and diffusions and their
			uses in stochastic
			volatility; volatility
			smiles; risk
			management; interest-
			rate models; and
			· ·
			derivatives, swaps,
			credit risk, and real
			options.

## Full - Time MSB:Finance Curriculum DC

FIRST YEAR (2012-2013)

Fall Semester (10 - 14 credits)	Winter Semester (2 credits)	Spring Semester (8 - 16 credits)
Term A		Term C
BUSI 610 - Introduction to Financial Accounting (2)	Optional BUFN 7xx - Finance Elective (2)	BUFN 758N - Financial Econometrics I (2)
BUSI 640 - Financial Management (2)		BUFN 7xx - Finance Elective (2)
BUFN 740 - Capital Markets (2)		Optional BUFN 7xx - Finance Elective (2)
		Optional BUFN 7xx - Finance Elective (2)
Term B		Term D
BUFN 750 - Valuation of Corporate Finance (2)		BUFN 758O - Financial Econometrics II (2)
BUFN 761 - Derivative Securities (2)		BUFN 7xx - Finance Elective (2)
BUFN 762 - Fixed Income Analysis (2)		Optional BUFN 7xx - Finance Elective (2)
Optional BUFN 7xx - Finance Elective (2)		Optional BUFN 7xx - Finance Elective (2)

#### Michael D Colson

From: Mike Marcellino [mmarcellino@rhsmith.umd.edu]

Sent: Tuesday, February 26, 2013 8:53 PM

To: Michael D Colson

Cc: kenwhite-contact; Michael Faulkender

Subject: Re: FW: Master of Finance

Attachments: MS-Finance Curriculum Fall 2012.xlsx

Hi Mike C,

Here is a followup to our conversation this afternoon.

Here is the link to the current MSB: Finance curriculum and I've attached a document with this layout as well. <a href="https://mbanetworth.rhsmith.umd.edu/MBACOP/PortalHub.nsf/id/curriculum\_fall2012\_admits\_MSBF\_CP">https://mbanetworth.rhsmith.umd.edu/MBACOP/PortalHub.nsf/id/curriculum\_fall2012\_admits\_MSBF\_CP</a> The curriculum requirements will be the same for the Masters in Finance as they currently are for the MSB: Finance.

Regarding the faculty director (question #4), the MSB: Finance has a overall Director (Dr Michael Faulkender) and an Academic Director (Dr Mark Taranto). They are currently serving in these roles for the MSB Finance and no responsibility changes are expected with the change in the program.

Please let me know if you need additional information.

**Thanks** 

Mike

#### Michael R Marcellino

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On Tue, Feb 26, 2013 at 4:54 PM, Michael D Colson <mcolson@umd.edu> wrote:

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