

MARYLAND HIGHER EDUCATION COMMISSION
ACADEMIC PROGRAM PROPOSAL

PROPOSAL FOR:

- NEW INSTRUCTIONAL PROGRAM
 SUBSTANTIAL EXPANSION/MAJOR MODIFICATION
 COOPERATIVE DEGREE PROGRAM
 WITHIN EXISTING RESOURCES or REQUIRING NEW RESOURCES

(For each proposed program, attach a separate cover page. For example, two cover pages would accompany a proposal for a degree program and a certificate program.)

Johns Hopkins University

Institution Submitting Proposal

Spring 2016

Projected Implementation Date

Master of Science

Finance

Award to be Offered

Title of Proposed Program

0506-00

52.0801

Suggested HEGIS Code

Suggested CIP Code

Carey Business School

Bernard Ferrari, Dean

Department of Proposed Program

Name of Department Head

Phil Tang

alo@jhu.edu

(410) 516-6087

Contact Name

Contact E-Mail Address

Contact Phone Number



12/17/2015

Signature and Date

President/Chief Executive Approval

n/a

Date

Date Endorsed/Approved by Governing Board

**The Johns Hopkins University
Carey Business School
Proposal for Substantial Modification to an Existing Program

Master of Science in Finance**

A. Centrality to institutional mission statement and planning priorities

1. Program description and alignment with mission

The Johns Hopkins University Carey Business School is pleased to submit a proposal to substantially modify the existing and previously endorsed Master of Science in Finance program (HEGIS code 0506-00; CIP code 52.0801) to offer an online option.

The Master of Science in Finance (MSF) is designed to prepare a new generation of leaders who are committed to the idea that the financial and holistic health of businesses and communities is critical to long-term, sustainable growth and prosperity. The program will equip students with the tools to identify, evaluate, and implement corporate investment projects, capital budgeting, financing, risk and return, and weighted average cost of capital concepts and processes to maximize shareholder value and minimize risk. Students will learn about financial modeling techniques, corporate capital structure decisions and the effective use of financial leverage in maximizing shareholder value while minimizing risk.

In addition to the face-to-face mode of instruction that is currently available to students, the program will be modified to offer an online option. Students will have a choice among face-to-face courses, online courses, or a combination of both, in a hybrid modality. Students enrolled in the program's online courses will be afforded the same resources and services as students enrolled in the face-to-face courses, including instruction from the same quality faculty.

The mission of the Johns Hopkins University is to educate its students and cultivate their capacity for life-long learning, to foster independent and original research, and to bring the benefits of discovery to the world. The Carey Business School supports business knowledge development and education through our own initiatives, innovations, and collaborative programs across the Johns Hopkins University. We create and share knowledge that shapes business practices while educating business leaders who will grow economies and societies, and are exemplary citizens. The program is fully consistent with both missions.

2. Alignment with institutional strategic goals

Johns Hopkins University has a long history of teaching business courses to professionals, including finance professionals, around the world. The overarching goal of the MSF program is to prepare students for careers in financial analysis and management.

While our students receive a firm grounding in the quantitative essentials of finance, the curriculum also emphasizes the need for creativity, critical thinking, and ethical behavior. In addition to a solid foundation in quantitative skills, the program also equips students with concepts and theories about the role of the board of directors, management and shareholders in achieving investor value maximization, agency theory, information asymmetry, and the resolution of conflict of interest between management and shareholders.

The curriculum, which provides a combination of a broad-based conceptual foundation with exposure to current industry challenges, aligns with the Carey Business School's vision to develop students into business leaders who are also exceptional leaders of communities and societies.

B. Adequacy of curriculum design and delivery to related learning outcomes

1. Program outline and requirements

Program requirements include a minimum of 36 graduate credits. Students will be expected to have basic quantitative skills prior to course work.

All students will take the following required coursework components:

- 8 business foundations courses (16 credits)
- 4 functional core courses (8 credits)
- 6 elective courses (12 credits)

See Appendix A for a complete list of course titles and descriptions.

2. Educational objectives and student learning outcomes

The educational objective of the MSF program is to equip students with the foundation and confidence to deliver superior returns while applying balanced asset management and risk awareness principles.

The program will allow students to achieve learning objectives that include:

- Students will learn to identify, evaluate, and implement corporate investment projects, capital budgeting, financing, risk and return, and weighted average cost of capital concepts and processes to maximize shareholder value and minimize risk.
- Students will learn the effective use of financial leverage in maximizing shareholder value while minimizing risk.
- Students will explore financial modeling techniques and their practical applications in valuation for mergers and acquisitions or initial public offerings.
- Students will learn the role of the board of directors, management and shareholders in achieving investor value maximization, agency theory, information asymmetry, and the resolution of conflict of interest between management and shareholders.
- Students will explore the role of the board of directors in determining the optimal combination of financing, investment, and dividend decisions.
- Students will learn how to assess financial risk in an uncertain market environment.
- Students will be able to study efficient portfolio formation using the best combination of investment risk and return.
- Students will learn the globally accepted ways of financial modeling and the valuation of stocks, bonds, derivatives, and the study of securities analysis.
- Students will learn the various global asset allocation models and hands-on teamwork develop analytical framework and skills necessary to design a global asset-allocation model portfolio.

3. General education requirements

Not applicable.

4. Specialized accreditation/certification requirements

Not applicable.

5. Contractual agreements with other institutions

Not applicable.

C. Critical and compelling regional or statewide need as identified in the State Plan

1. Demand and need for program

According to the United States Bureau of Labor Statistics¹, the financial industry will add 1.6 million jobs by 2022 in the following occupations, for which the MSF program prepares students:

- Financial managers
- Business and financial operations occupations
- Financial specialists
- Accountants and auditors
- Budget analysts
- Credit analysts
- Financial analysts and advisors
- Financial analysts
- Personal financial advisors
- Financial examiners
- Financial specialists
- Securities, commodities, and financial services sales agents

A recent survey of global financial centers by the Global Financial Centers Index ranked Washington D.C. among the top 10 financial centers in the world, ahead of cities like Chicago, Boston, Geneva, and Shanghai². This annual survey ranks cities based on their business environment, financial sector development, infrastructure, human capital, reputation among other factors.

The MSF program is well positioned to educate finance professionals and meet the growing demand of a well-trained workforce in the industry in Maryland and the region by offering an online option.

¹ Employment projections. (2013, December 19). Retrieved October 11, 2015, from http://www.bls.gov/emp/ep_table_102.htm

² The global financial futures index 18. (2015, September). Retrieved October 12, 2015, from http://www.longfinance.net/images/GFCI18_23Sep2015.pdf

2. Alignment with the 2013-2017 Maryland State Plan for Postsecondary Education

The 2013-2017 Maryland State Plan for Postsecondary Education articulates six goals for postsecondary education: 1) quality and effectiveness; 2) access, affordability and completion; 3) diversity; 4) innovation; 5) economic growth and vitality; and 6) data use and distribution. This program addresses most of these goals.

Relative to Goal 1 of the State Plan (“Enhance its array of postsecondary education institutions and programs, which are recognized nationally for academic excellence and more effectively fulfill the evolving educational needs of its students, the state and the nation”), the Carey Business School is committed to developing the MSF program, utilizing the school’s renowned faculty and collaborators.

In addition to the commitment to excellence and effectiveness, the Carey Business School is committed to ensuring access and affordability, consistent with Goal 2 (“Achieve a system of postsecondary education that advances the educational goals of all by promoting and supporting access, affordability and completion”) of the Maryland State Plan, by providing scholarships to help students afford graduate education, using a combination of internal and external sources.

The Carey Business School is committed to the Maryland State Plan Goal 3 (“Ensure equitable opportunity for Academic success and cultural competency Maryland’s population”) and aspires to have a diverse student body in all programs. Furthermore, through the development of strong and clear student learning outcomes and objectives, the proposed program also aligns with Goal 4 (“Seek to be a national leader in the exploration, development, and implementation of creative and diverse education and training opportunities that will align with State goals, increase student engagement, and improve learning outcomes and completion rate”).

Considering the projected demand for the well-educated and qualified finance professionals to address the new and future challenges of the interconnected and global finance industry, this program is aligned with Goal 5 (“Stimulate economic growth, innovation, and vitality by supporting a knowledge-based economy, especially through increasing education and training and promoting the advancement and commercialization of research”).

D. Quantifiable and reliable evidence and documentation of market supply & demand in the region and State

1. Market demand

The Maryland's Department of Labor, Licensing and Regulation projects growth in various financial positions between 2012 and 2022. These are positions that the Carey MSF students are well positioned to hold.

In addition to the large brand name financial institutions like Chevy Chase Bank, Legg Mason, and T Rowe Price, Maryland is a thriving market of financial institutions that are in need of professionals with financial training.

Graduates from the MSF program will be prime candidates for employment at the following hedge funds located in Maryland, as listed below³:

Financial Institutions	No. of Employees
Croft-Leominster Inc.	300
Sol Capital Management Co	300
Baltimore-Washington Financial Advisors Inc.	400
Convergent Wealth Advisors	400
Wagner Bowman Management Corp	400
WMS Partners LLC	400
Corbyn Investment Management Inc.	500
Hardesty Capital Management Corp	500
Heritage Investors Management Corp	500
Macroview Investment Management LLC	500
Maryland Capital Management	500
Roumell Asset Management LLC	500
SPC Financial Inc.	600
Brown Advisory Securities LLC	800
Horan Capital Management	800
Pinnacle Advisory Group Inc.	800
Financial Consulate Inc.	900
Price T Rowe Associates Inc.	1,300
Fulton Breakefield Broenniman LLC	2,000
Founders Financial Securities LLC	3,000

³ Hedge fund list. (2015, October 1). Retrieved October 12, 2015, from <http://www.octafinance.com/hedge-funds/hedge-funds-list/>

Employment of business and financial operations occupations is projected to grow 8% from 2014 to 2024, about as fast as the average for all occupations. A stronger regulatory environment is driving the demand for more highly trained finance professionals. Table 1 outlines this projected growth in various occupations including Financial Specialists, Financial Analysts, Accountants and Auditors, and Financial Examiners.⁴

Table 1: Estimated Growth in Financial Positions, 2012-2022					
Occupational Title	Employment			Openings	
	2012	2022	Change	Replacement	Total
Business and Financial Operations Occupations	174,080	189,193	15,113	33,832	49,390
Financial Specialists	59,277	63,287	4,010	14,470	18,771
Accountants and Auditors	27,081	29,394	2,313	8,015	10,328
Budget Analysts	2,231	2,433	202	895	1,097
Financial Analysts	5,678	6,290	612	1,381	1,993
Personal Financial Advisors	4,450	5,055	605	719	1,324
Financial Examiners	523	548	25	133	158
Financial Specialists, All Other	5,545	5,666	121	581	702
Total Openings					83,763
Annual Market Demand					8,376

Over the past five years, the Johns Hopkins University and the Carey Business School have been monitoring and tracking the number of inquiries and applicants to the current Carey finance program. Overall inquiries have significantly increased.

Inquiries in 2013-2015 to the programs with a focus on finance:

Academic Year	Inquiries for the programs with focus on Finance	Growth %	Enrolled
2013/14	413	-	328
2014/15	1,459	72%	322
2015/16	1,833	20%	527

The demand from prospective students to the Carey Business School's academic offerings in finance and the finance concentration in the MBA program has been increasing. Based on this data, as well as individual and group discussions with current students, we are modifying the curriculum to add online and hybrid options of program delivery. The MSF program is well positioned to educate professionals to meet the growing demand of the finance sector in the region, nationally, and internationally.

⁴ <http://www.dllr.state.md.us/lmi/iandoproj/occgrou13.shtml>

2. Educational and training needs in the region

Considering projections for growth in the finance sector, the Carey Business School is anticipating that there will be substantial demand for highly skilled graduates from the Master of Science in Finance program, especially given the changes in the finance industry.

The Bureau of Labor Statistics states that 7 of 10 currently existing jobs did not exist in 2004, and 90 percent of new jobs will require some type of post-secondary education or training. The finance sector remains a strong growth sector of the economy, one with a workforce expected to grow by 8 percent by 2024.

The Master of Science in Finance program fully prepares students to meet the growing demands that will be placed on finance professionals both in the U.S. and globally.

3. Prospective graduates

The MSF program is expected to enroll 105 part-time students in the first year, with an enrollment goal of 150 in the second year and increasing after that per year for the following years. By year three, we expect to graduate the first group of 105 part-time students in this program. By year five, we expect 210 part-time students will have completed the program and received their degrees.

Starting in year two, we anticipate enrolling 400 students pursuing this program as a full-time option. This number is expected to increase to 450 students per year, in years three through five. The full-time program is designed to be completed in three semesters (fall, spring, summer) so the incoming full time students will graduate each year.

E. Reasonableness of program duplication

1. Similar programs

There are several institutions in the state of Maryland that offer programs focused on finance. The following examples are the closest examples to the program proposed herein.

Institution	Program	Online option
University of Baltimore	Master of Science in Business Finance	No
UMUC	Master of Science in Accounting and Financial Management	Yes
Loyola University	Master of Science in Finance	No
UMCP	Master of Science in Finance	No

Most of the master's level programs offered in the State of Maryland are offered in the traditional face-to-face campus-based instruction. Most of these programs, with the exception of Loyola University, are designed for students who majored in accounting during undergraduate and are preparing for Certified Public Accountants (CPA) credential.

The Carey Business School MSF program is designed to attract students from all educational backgrounds and equip them with tools to identify, evaluate, and implement corporate investment projects; plan for capital budgeting, financing, and assessing risk and return; apply weighted average cost of capital concepts; and processes to maximize shareholder value and minimize risk.

The goal of the MSF program is to educate finance professionals who have a strong set of analytical skills, deep expertise in finance, and also firm grasp of the concepts necessary to be well-rounded to not only measure maximization of shareholder value but also impact of business in the community.

2. Program justification

The financial industry, after the financial crisis, has dramatically changed with new legal structures, investment tools, and higher reporting and compliance standards. These changes require finance leaders who are equipped with both quantitative and leadership skills to analyze and make ethical decisions. The Master of Science in Finance curriculum is designed to train a new generation of leaders who are committed to the idea that the financial and holistic health of businesses and communities is critical to long-term, sustainable growth and prosperity.

In addition to quantitative courses, the strong focus on leadership will be presented through courses such as Business Communication and Business Leadership and Human Values.

The proposed modification will allow the MSF program to be offered online as well as a hybrid of both face-to-face and online.

F. Relevance to Historically Black Institutions (HBIs)

The Historically Black Institutions in Maryland offer various graduate programs that include MBA and MS programs. Bowie State University offers Master of Business Administration (MBA), MS in Management Information Systems (MSMIS), and Master of Public Administration (MPA) programs. Coppin State College offers Accounting and Management Information Systems, Management and Marketing, and Sport and Entertainment Management programs. University of Maryland Eastern Shore does not offer a Master of Science in Finance program. Morgan State University offers a Master's of Professional Accountancy (MPA) program. Given the programs offered by the Maryland Historically Black Institutions, we do not foresee any impact from the Carey Business School MSF program on these institutions.

G. Evidence of the Principles of Good Practice

See Appendix C for the evidence that this program complies with the Principles of Good Practice for distance education.

The Higher Education Opportunity Act (HEOA) enacted in 2008 requires that an academic institution that offers distance education opportunities to students 1) has a process established to verify that the student who registers is the same student who participates in and completes the offering and receives academic credit for it, 2) has a process established, to verify that student privacy rights are protected, and 3) has a process established that notifies the student at about any additional costs or charges that are associated with verification of student identity. In this graduate program, the following actions have been taken to satisfy these requirements: 1) students may only enter the academic website for the online courses they take by providing their unique student ID and password they receive when they are admitted to the programs, 2) all FERPA privacy rights are preserved by limiting access very specifically in the University student information system to only those permitted by law to have access to restricted student information, and 3) there are no additional costs assessed to the student for the measures we use to verify student identity.

H. Adequacy of faculty resources

The Carey Business School is fortunate to possess a core of experienced full-time faculty members who are available to teach, advise, or serve on the curriculum committees in the Master of Science in Finance program. Each has earned either a doctoral degree or appropriate Master's training, holds a primary appointment at the Carey Business School, and has considerable experience conducting and disseminating research in his or her area of expertise. Appendix B highlights each core faculty member's expertise related to the Master of Science in Finance. At the time of this writing, it has yet to be determined which specific courses each individual faculty member will teach.

It is our goal to have the program taught almost exclusively by full-time faculty, many of whom are on the tenure (research) track. Our faculty members are well-known national experts in their areas of expertise. More than half the faculty at Carey has research projects in finance and those who are or will teach in Carey's finance related programs have ongoing programs of research in finance (Federico Bandi, Xian Sun, Shabnam Mousavi, Jim Liew, and Wei Li). Many of our faculty have extensive experience in finance and related industries and are national thought leaders (Federico Bandi, Xian Sun, Shabnam Mousavi, Demir Yener). We have and will continue to recruit full-time faculty with research and/or practical experience in finance this academic year and in the future.

I. Adequacy of library resources

The Milton S. Eisenhower Library on the Homewood campus is ranked as one of the nation's foremost facilities for research and scholarship. Its collection of over three million bound volumes, several million microfilms, and over 13,000 journal subscriptions has been assembled to support the academic efforts of the University. The interlibrary loan department makes the research collection of the nation available to faculty and students. The library also provides easy access to a wide selection of electronic information resources, including the library's online catalog, and numerous electronic abstracting and indexing tools. Many of the databases are accessible remotely. The library offers a variety of instructional services, including electronic classrooms designed to explain the library resources available for research and scholarship. Librarians help students electronically and the library maintains an extensive web site to take visitors through all of its services and materials.

J. Adequacy of physical facilities, infrastructure and instructional equipment

The proposed Master of Science in Finance online option will not impact the Carey Business School's physical facilities and infrastructure.

K. Adequacy of financial resources with documentation

Details concerning the resources and expenses may be found in Appendix D.

L. Adequacy of provisions for evaluation of program

On a day-to-day level, the program will be overseen by a combination of the Vice Dean for Education, the Associate Dean for Admissions and Academic Programs, the Associate Dean for Student Development (who oversees academic advisers), the Registrar and a faculty Academic Program Director who together will be responsible for managing the program plans, monitoring students' progress in programs and ensuring that the students are in good academic standing according to the school's policies, as well as managing course offerings, conducting program evaluations, and working with the Curriculum Committee. The School's curriculum committee will be responsible for revision of the curriculum and recommendations for the required modifications with the course offerings and evaluation of the faculty expertise required for these course offerings, and evaluating how students achieve the desired learning outcomes. In addition to the administrative structure mentioned above, the office of Teaching & Learning@Carey manages the course evaluation process and provides instructional design that is useful in assuring the quality of all academic courses and programs and will be integral to the design of a coordinated and coherent set of courses and pedagogical approaches for the new Master of Science in Finance program.

M. Consistency with the State’s minority student achievement goals

The Johns Hopkins University follows all stipulations of Title VI, Title IX, and Section 504. Accordingly, race is not considered in the administration of the school’s educational programs. Nonetheless, in accordance with Johns Hopkins University’s stated commitment to diversity, we believe educators should use aggressive and innovative recruitment and support processes to increase and sustain diversity. To that end, the following focused recruitment activities will be employed: (1) Involvement of students from culturally and linguistically diverse (CLD) backgrounds in the planning and delivery of information sessions and recruitment information; (2) Success stories about previous CLD graduates as part of the recruitment literature; (3) Focused information meetings that emphasize that the school provide mentoring opportunities and a range of student activities including student clubs that encourage participation of students from different cultural, academic and professional backgrounds.

N. Relationship to low productivity programs identified by the Commission

Not applicable.

Appendix A

Course List and Descriptions

Curriculum (36 credits)

Business Foundations

210.620 Accounting and Financial Reporting (2 credits)

This course emphasizes the vocabulary, methods, and processes by which business transactions are communicated. Topics include the accounting cycle; basic business transactions involving assets, liabilities, equity, account revenue, and expense; as well as preparation and understanding of financial statements, including balance sheets, statements of income, and cash flows.

510.601 Statistical Analysis (2 credits)

Students learn statistical techniques for further study in business, economics, and finance. The course covers sampling distributions, probability, hypothesis testing, regression and correlation, basic modeling, analysis of variance, and chi-square testing. The course emphasizes statistics to solve management problems. Case studies, spreadsheets, and SPSS computer software are used.

120.601 Business Communication (2 credits)

This course refines student's skills in written and oral communication to internal and external audiences. Through analyses and practice of communication strategies adopted by successful business professionals, students learn to write clearly and concisely, make compelling oral presentations, construct effective arguments.

220.610 The Firm and the Macro-economy (2 credits)

This macro-economic course emphasizes the role of governments and their effect on the global business environment. Major topics include economic growth, inflation, unemployment, exchange rates, fiscal and monetary policy, and international finance. The course provides students with the necessary theoretical framework relevant to helping them develop an economic perspective for analyzing real-world phenomena.

220.620 Economics for Decision Making (2 credits)

This is a microeconomics course with emphasis on the application of economic principles and methodologies to managerial decision problems. Major topics include consumer choice and demand, production and costs, market structures and output/price decisions.

131.601 Business Leadership and Human Values (2 credits)

This course explores ethical leadership as a framework for enterprise value creation in a complex environment of competing economic and moral claims. Students examine the intrinsic ethical challenges of leadership and the concept of a moral compass as a foundation for responding effectively to the ethical challenges of corporate citizenship and value creation in a competitive global economy.

231.620 Corporate Finance (2 credits)

This course is designed to introduce students to the basic, yet fundamental, issues of modern finance. The goal of the course is to provide students with the basic tools needed to successfully complete more advanced finance courses. This course deals primarily with a firm's investment and financing decisions and its interactions with the capital markets. Students are taught the fundamental principles of financial valuation and analysis, which provide a solid foundation for all other finance courses.

232.701 Investments (2 credits)

Through an in-depth study of portfolio theory and asset-pricing models, students acquire the analytical skills necessary to conduct valuations of equities, fixed-income securities, and alternative investments. This exploration leads to an understanding of the concept of portfolio management and the importance of diversification in controlling portfolio risk.

Functional Core

230.620 Financial Modeling and Valuation (2 credits)

This course comprises a Corporate Finance section and an Investment section. The Corporate Finance section discusses how to value corporations using balance sheet information. The Investment section covers issues in applied asset pricing such as estimating the volatility of asset returns, evaluating asset betas, constructing efficient portfolios, and quantifying optimal asset allocations. Topics in risk-management, such as value-at-risk, are also discussed.

231.710 Financial Institutions (2 credits)

This course analyzes the role of financial institutions in allocating resources, managing risk, and exerting corporate governance over firms. Special attention is given to the role of central banks in influencing interest rates. The class studies conflicts of interest in financial intermediaries, and assesses in-depth the economics of regulation and the political forces shaping policy decisions. Besides familiarizing students with the operation and management of banks, mutual funds, insurance companies, pension funds, and investment banks, the class also uses the economics of information to understand the functioning of financial institutions. An international perspective is stressed. Examples from countries with different legal, political, and regulatory regimes provide a richer understanding of the role of financial institutions than is possible by studying any single country.

232.710 Derivatives (2 credits)

This course offers a rich overview of forwards, futures, swaps and options. The course will cover both the actual working of derivatives and the analytical tools needed to effectively understand derivatives. Skills are developed in pricing analysis, use of pricing models, trading, and hedging strategies. The strategies are developed to match specific economic goals, such as portfolio risk reduction.

232.720 Fixed Income (2 credits)

This advanced course focuses on the major markets and instruments, pricing and volatility, and risk management of fixed income securities and portfolios. Topics include features and risks of a variety of fixed income securities including bonds with embedded options, mortgage-backed and other derivative bonds, yield spreads, forward rates and term structure theories, risk management techniques, and bond investment risks and portfolio management strategies. (2 credits)

Elective Courses (12 credits; students choose 6 courses)

230.730 Managing Financial Risk (2 credits)

The course offers an introduction to financial risk management. Risk management is a complex process of identifying, measuring, and controlling risk exposure. The course will balance theory and practical application. Topics include market and credit risks, liquidity, and operational and legal risks, including volatility modeling, and derivatives as tools for controlling risk. Using modern econometric models, such as ARCH and GARCH, along with widely used quantitative methods (Monte Carlo simulation and Filtered Historical simulation), the course will describe how to measure and control risk exposure towards various types of risks, especially market and credit risk.

233.730 Entrepreneurial Finance (2 credits)

This course introduces students to identifying, accessing, and evaluating sources of financing for start-ups and expanding technology companies. The approach uses case studies, group interaction, and presentations from experts in the field. Attention will be given to financial theory, risk assessment, valuation options, term sheets, due diligence techniques, and the setting up of financial reports for monitoring progress toward meeting milestones.

231.720 Corporate Governance (2 credits)

The value of a firm depends on corporate governance practices that protect the investor. Greater investor protection lowers the cost of capital. Thus, the set of governance practices, rules and regulations that promote private sector development also promote firm value. Topics include corporate pyramidal structures, hostile takeovers and the failure of the market for corporate control, mutual fund governance, executive compensation policies, boardroom structure and practices, corporate transparency and the value of the shareholder vote.

210.650 Advanced Financial Accounting (2 credits)

This course covers the information content of financial statements and how this information is used by external decision makers. Topics include the time value of money, risk and return, bond and stock valuation, ratio analysis, working capital management, and cost of capital. The course focuses on analyzing the impact of various business transactions on financial statements and how this information is used to make investment, valuation, and credit decisions.

230.710 Quantitative Financial Analysis (2 credits)

This course explores the fundamentals of Monte Carlo simulation techniques and their applications in finance. Using Matlab as the programming platform, this course exposes students to hands-on computer exercises in advanced quantitative topics. This course trains students to become familiar with simulation techniques in modern financial engineering. Matlab is widely used in many science disciplines and is also emerging as one of the most popular programming platforms in the financial industry. This course is taught as a lab and will require a lab fee in addition to standard tuition.

231.790 Advanced Corporate Finance (2 credits)

By employing a case study approach, students learn how the theoretical concepts and tools learned in the Corporate Finance class are applied in solving real world problems. Through such key concepts as financial forecasting, cost of capital, capital budgeting, optimal capital structure, dividend policy, and firm valuation, students learn the analytical techniques necessary to make rational financial decisions such as investments, and mergers and acquisitions.

230.750 Financial Crisis and Contagion (2 credits)

This course takes students through the last 30 years of financial bubbles, manias and scandals in the U.S., from the thrift crisis of the 1980s, to the Long-Term Capital Management and Enron debacles, to the recent mortgage meltdown and Great Recession. Examining the upheavals of these three decades is key to understanding how the law and landscape of modern financial markets evolved and where they are headed. (2 credits)

232.750 Advanced Portfolio Management (2 credits)

Through an in-depth study of various global asset allocation models and hands-on team work, students develop the analytical framework and skills necessary to design a global asset allocation model portfolio, surveying strategies for coordinating investment planning for high net-worth individuals, as well as institutional clients. Students will journey across U.S. markets, development markets, and emerging markets in search of the best relative value investment opportunities. In asset allocation groups, they will collaborate with fellow members to arrive at the optimal global asset allocation model portfolio for an institutional client of their choice, such as a sovereign wealth fund, endowment, foundation, high net worth, defined benefit, and defined contribution or variable annuity insurance company. The course will provide a practical learning experience for a range of advanced portfolio asset allocation, and hedge fund and proprietary trading strategies with an emphasis on understanding their fundamental investment process. Students will gain practical knowledge relative to creating, back-testing, and implementing these strategies. The optimal portfolio will be presented to your instructors, the “trustees”, as well as a guest “trustee”. Along the semester, investment policy choices will need to be made related to asset class components, target asset class weights, the magnitude of tactical allocation shifts, performance expectations, etc. The end outcome is a better understanding of how to design a global allocation portfolio appropriate for a client’s risk profile and how to identify significant areas of portfolio risk.

Appendix B

Faculty

Ahmad Ajakh, PhD (University of Nantes, France), Lecturer, teaching interests are Alternative Investments, Financial Modeling, and Quantitative Finance and Risk Management.

Amity Willenborg, MDSE, MBA, Senior Professional Instructor, teaching interests are Corporate Finance and Working Capital Management.

Arefaine Ghebre-Yohannes, PhD (Northwestern University), Senior Lecturer, teaching interests are Economics and Finance.

Bonnie Robeson, PhD (West Virginia University), Senior Lecturer, teaching interests are: Statistics for Business, Quantitative Analysis for Decision Making, Business Side of Life Science, and Strategies for Leading and Managing in a Life Science Organization.

Charles Freitag, CPA, MBA (Lehigh University), Senior Professional Instructor, teaching interests are Accounting and Managerial Finance.

Dalton Tong, MBA, CPA, CGMA, FACHE, FHFMA, Senior Lecturer, teaching interests: Accounting.

Janna Myllyuoma, PhD (Johns Hopkins University Bloomberg School of Public Health), Senior Professional Instructor, teaching interests: Business and Leadership Ethics, Business Communication, Leadership and Conflict Coaching.

Jim Liew, PhD (Columbia Business School), Assistant Professor, teaching interests: Derivatives, Entrepreneurial Finance, Fixed Income, Hedge Fund Strategies, Wealth Management.

Joseph Colantuoni, PhD (University of Virginia), Senior Professional Instructor, teaching interests: Corporate Finance, Financial Institutions Management, Option Pricing Theory, and Financial Risk Management.

Kathleen Day, MS (Columbia University), MBA (NYU), Lecturer, teaching interests: Business Communication

Kevin Lanagan, MBA. Senior Professional Instructor, teaching interests: Business Communications, Corporate Governance, and Financial Ratio Analysis.

Kwang Soo Cheong, PhD (Stanford University), Associate Lecturer, teaching interests: Corporate Finance, Investments, Econometrics, Managerial Economics, and Quantitative Methods in Finance.

Louise Schiavone, MS (Columbia University), Senior Lecturer, teaching interests: Business and Crisis Communications, Communications in a Changing Media Environment, and Effective Self-Presentation.

Li Wei, PhD (University of Maryland) Assistant Professor, teaching interests: Investments, Derivatives, and Fixed Income Securities.

Mike Kubik, MBA (Johns Hopkins University) CFA, Senior Associate Lecturer, teaching interests: Asset Allocation and Investments.

Mitsukuni Nishida, PhD (University of Chicago), Assistant Professor, teaching interests: Microeconomics and Business Strategy.

Nayoung Louie, PhD (Johns Hopkins University), Lecturer - Full time, teaching interests: Statistics and Discovery to Market

Richard Gil, PhD (University of Chicago), Associate Professor, teaching interests: Organizational economics, with a focus on strategy and industrial organization.

Shabnam Mousavi, PhD (Virginia Polytechnic Institute), Assistant Processor, teaching interests: Behavioral Finance, Heuristic Decision Making, Decision Theory, Mathematical/Statistical Modeling.

Shrikant Panwalkar, PhD (University of Oklahoma), Associate Professor, teaching interests: Operations Management, Project Management, Decision Models, and Statistics/ Quality Management.

Supriya Munshaw, PhD (Duke University), Lecturer, teaching interests: Technology Transfer, Commercialization of Early-stage Technologies, and Healthcare and Pharmaceutical Strategy.

Xian Sun, PhD (Rensselaer Polytechnic Institute), Assistant Professor, teaching interests: Corporate Finance and Financial Institutions.

Yuval Bar- Or, PhD (University of Pennsylvania), Assistant Professor, teaching interests: Risk Management, Investments, Wealth Management, Corporate Finance, Decision Making, Advanced Portfolio Management.

Appendix C

Evidence of Compliance with the Principles of Good Practice (as outlined in COMAR 13B02.03.22C)

(a) Curriculum and Instruction

- (i) **A distance education program shall be established and overseen by qualified faculty.**

The online option of the MSF program proposed here has been developed by the Johns Hopkins Carey Business School Vice Dean for Education and the Academic Program Director in consultation with colleagues at the Johns Hopkins Carey Business School.

Vice Dean and Professor Kevin Frick taught online programs for nearly a decade at the Johns Hopkins Bloomberg School of Public Health prior to joining the Carey Business School faculty and administration. He is involved in the development of the school's online courses and works closely with the head instructional designer who leads the Learning@Carey faculty support office.

Demir Yener, Academic Program Director, is a senior lecturer with expertise in finance and corporate governance. Demir Yener will handle all tasks that deal directly with students.

The online courses taught in the MSF program will continue to be offered in the face-to-face format by the same pool of faculty.

- (ii) **A program's curriculum shall be coherent, cohesive, and comparable in academic rigor to programs offered in traditional instructional formats.**

The courses that would be offered in the online option of the MSF program already exist as part of the school's face-to-face part-time MSF program. The comparability to the programs offered in traditional instructional formats is clear because the courses are taught in both modalities, and the development of courses is designed to assure that the learning experience is sufficiently similar to warrant this type of consideration.

- (iii) **A program shall result in learning outcomes appropriate to the rigor and breadth of the program.**

The online option of the MSF program will allow students to achieve learning objectives that include:

- Students will learn to identify, evaluate, and implement corporate investment projects, capital budgeting, financing, risk and return, and weighted average cost of capital concepts and processes to maximize shareholder value and minimize risk.
- Students will learn about corporate capital structure decisions and the effective use of financial leverage in maximizing shareholder value while minimizing risk.

- Students will explore financial modeling techniques and their practical applications in valuation for mergers and acquisitions or initial public offerings.
- Students will learn to the role of the board of directors, management and shareholders in achieving investor value maximization, agency theory, information asymmetry, and the resolution of conflict of interest between management and shareholders.
- Students will explore the role of the board of directors in determining the optimal combination of financing, investment, and dividend decisions.
- Students will learn to expertly assess financial risk in an uncertain market environment.
- Study efficient portfolio formation using the best combination of investment risk and return.
- Leverage cutting-edge finance techniques and the resources that support them.
- Students will learn the globally accepted ways of financial modeling and the valuation of stocks, bonds, derivatives, and the study of securities analysis.
- Students will learn the various global asset allocation models and hands-on teamwork develop analytical framework and skills necessary to design a global asset allocation model portfolio.

(iv) A program shall provide for appropriate real-time or delayed interaction between faculty and students.

Each of the courses includes both asynchronous (delayed) and synchronous (real-time) interaction opportunities. Good online course development attempts to find the optimal combination of these to facilitate the learning objectives. The delayed interaction includes listening to prerecorded lectures and the use of discussion boards (among other opportunities). Each course includes some type of real-time contact with audio coming primarily from (or at least being controlled by) the faculty but with either text or audio options for students who want to actively participate in a real time exchange.

(v) Faculty members in appropriate disciplines in collaboration with other institutional personnel shall participate in the design of courses offered through a distance education program.

The faculty who are designing the courses in the proposed program already are full-time or part-time faculty at the university. Any courses yet to be designed for an online learning experience will utilize the help of instructional designers to maximize their quality.

(b) Role and Mission

(i) A distance education program shall be consistent with the institution's mission.

Refer to section A.1 in the main body of the proposal.

- (ii) Review and approval processes shall ensure the appropriateness of the technology being used to meet a program's objectives.**

The Carey Business School will utilize Blackboard, a learning management system that has met the test of the market for online course materials. In addition, various technologies will be utilized in facilitating asynchronous and synchronous teaching and learning. The university has a Faculty Advisory Committee on Digital Education charged with guiding the choice of appropriate technologies. This committee is governed by the JHU Provost's office.

(c) Faculty Support

- (i) An institution shall provide for training for faculty who teach with the use of technology in a distance education format, including training in the learning management system and the pedagogy of distance education.**

Faculty development initiatives including online teaching training and collaboration with instructional designers have been provided to faculty. The Carey Business School offers online courses in the Flexible MBA program and a Post-Baccalaureate Certificate in the Business of Health Care. The policies and processes governing the implementation of these programs will be transferred to the online option of the MSF program.

- (ii) Principles of best practice for teaching in a distance education format shall be developed and maintained by the faculty.**

The Carey Business School will work to ensure that faculty are aware of best practices in online pedagogy. The instructional design staff within Teaching & Learning@Carey produce workshops for the faculty of the Carey Business School as a whole and work specifically with individual faculty to assure best practices in teaching in all environments. At the university level, the Faculty Advisory Committee on Digital Education led by the Provost's office will have a role in this ensuring best practices as well as assuring appropriate technology as mentioned earlier.

(iii) An institution shall provide faculty support services specifically related to teaching through a distance education format.

The Carey Business School designated the 2013-14 academic year as the Year of Instruction, during which online teaching was a primary focus. The school is always committed to the continual offering of online teaching and development programs to the faculty. In the spring of 2015, more than 50 faculty members attended a Saturday afternoon workshop related to online teaching and faculty continue to be engaged in workshops extended their online and face-to-face pedagogical skills on a regular basis. Some of the teaching development initiatives that the school will implement include, faculty events with expert guest speakers, faculty mentoring from faculty who have previously taught online courses, sponsored development faculty conferences and seminars, software workshops and training, and collaborations with instructional designers and instructions technologists.

(d) An institution shall ensure that appropriate learning resources are available to students including appropriate and adequate library services and resources.

The students will have online access to the Milton S. Eisenhower Library on the Homewood campus, which is ranked as one of the nation's foremost facilities for research and scholarship. Its collection of more than three million bound volumes, several million microfilms, and more than 13,000 journal subscriptions has been assembled to support the academic efforts of the University. The interlibrary loan department makes the research collection of the nation available to faculty and students. The library also provides easy access to a wide selection of electronic information resources, including the library's online catalog, and numerous electronic abstracting and indexing tools. Many of the databases are accessible remotely. Librarians help students electronically and the library maintains an extensive web site to take visitors through all of its services and materials.

(e) Students and Student Services

(i) A distance education program shall provide students with clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interaction, assumptions about technology competence and skills, technical equipment requirements, learning management system, availability of academic support services and financial aid resources, and costs and payment policies.

All such information will be provided to students as part of the marketing for and description of the program. While much of the activity will be asynchronous, all of the courses are expected to include interaction by discussion board, interaction by faculty evaluation of student work in various forms, and some live sessions during the class. The learning management systems will be identified for students and the hardware requirements will be clarified, as will academic support services (see below), financial aid resources, and costs and payment policies.

- (ii) **Enrolled students shall have reasonable and adequate access to the range of student services to support their distance education activities.**

Academic Advising. Students are assigned an advisor at the Carey Business School when accepted. Students work individually with the advisor to develop a course of study that meets the requirements of the program and the career goals of the student, although with only six courses for twelve credits the amount of choice will be limited. There is regular communication between the advisor and the students to check on progress and answer questions. Courses that deviate from the program plan and have not been approved by an adviser may not count toward degree requirements. A degree audit tool is provided so students verify their selections match degree requirements.

Library Services. Students have online access to the Milton S. Eisenhower Library on the Homewood campus, ranked as one of the nation's foremost facilities for research and scholarship. The interlibrary loan department allows students access to resources at any other university in the nation. The library also provides easy access to a wide selection of electronic information resources, including the library's online catalog, and numerous electronic abstracting and indexing tools. Many of the databases are accessible remotely. Librarians are available to assist students remotely and the library maintains an extensive web site to take visitors through all its services and materials.

Services with Students with Disabilities. The Johns Hopkins University is committed to making all academic programs, support services, and facilities accessible to qualified individuals. Students with disabilities who require reasonable accommodations can contact the Assistant Director of Student Activities in the Carey Business School.

Johns Hopkins Student Assistance Program. The Johns Hopkins Student Assistance Program (JHSAP) is a professional counseling service that can assist students with managing problems of daily living. Stress, personal problems, family conflict, and life challenges can affect the academic progress of students. JHSAP focuses on problem solving through short-term counseling. Accessing the service is a simple matter of a phone call to arrange an appointment with a counselor. Online students may call a phone number for consultation and will be directed to the appropriate resource or office. JHSAP services are completely confidential. The program operates under State and Federal confidentiality legislation and is HIPAA compliant.

Transcript Access. Official transcripts will be mailed upon written request of the student at no charge.

Student ID JCard. The JCard serves as the student's University identification card. This card is mailed to the home address of every registered student. The JCard acts as the university library card, which enables students to check out books from the Homewood Eisenhower Library or at any of the campus center libraries, and provides access to many computer laboratories.

- (ii) Accepted students shall have the background, knowledge, and technical skills needed to undertake a distance education program.**

The learning management system used by the Carey Business School is user friendly. Students who enroll in the online option of the Master of Science in Finance program will have demonstrated the technical skills necessary to succeed in a distance education program. Admissions materials emphasize the self-discipline required to succeed in a program that does not have formal class meeting times but requires the student to work at his or her own pace.

- (iii) Advertising, recruiting, and admissions materials shall clearly and accurately represent the program and the services available.**

In the Carey Business School, the marketing staff work directly with academic program managers and the faculty academic program directors to understand the courses and programs of study in order to develop informative and accurate marketing materials.

(f) Commitment to Support

- (i) Policies for faculty evaluation shall include appropriate consideration of teaching and scholarly activities related to distance education programs.**

The Carey Business School treats teaching an online course the same as teaching a course face-to-face. Distance education programs are considered an essential part of the scholarly activities for faculty at the school. At the Carey Business School, each course has the option to conduct a mid-term course evaluation. The mid-term evaluation is anonymous but the results are shared with the faculty prior to the end of the course for the purposes of correction as necessary. If there is a need for correction, the instructional design staff in Teaching & Learning@Carey and other faculty can be brought to interact with the faculty. For online courses, the interaction would be to review discussion board interaction, to attend a live session that is being held, and then to review the application of the grading rubric. In addition, an end of course evaluation is also conducted. The results are reviewed by the Director of Teaching & Learning@Carey as well as by the Vice Dean for Education and the Vice Dean for Faculty and Research. The results are used to improve the course offerings in the future and to determine whether part-time faculty are to be rehired and how to target interventions for full-time faculty.

- (ii) An institution shall demonstrate a commitment to ongoing support, both financial and technical, and to continuation of a program for a period sufficient to enable students to complete a degree or certificate.**

Please see sections J and K of the proposal.

(g) Evaluation and Assessment

- (i) An institution shall evaluate a distance education program's educational effectiveness, including assessments of student learning outcomes, student retention, student and faculty satisfaction, and cost-effectiveness.**

Each course will be subject to a course evaluation and the grade distribution will be assessed. The Carey Business School will also keep a record of the number of students who complete the program and those who do not. For those who withdraw, the courses they have and have not taken toward the completion of the certificate will be tracked. The evaluation will also include an assessment of faculty and student satisfaction via exit interviews for the students and regular meetings for the faculty to understand what is working well and what improvements might be necessary.

- (ii) An institution shall demonstrate an evidence-based approach to best online teaching practices.**

The Carey Business School has multiple rubrics to choose from for evaluating the quality of online courses including: the Quality Matters and Sloan-C rubrics. At the university level, the Faculty Advisory Committee on Digital Education provides additional insight on these issues.

- (iii) An institution shall provide for assessment and documentation of student achievement of learning outcomes in a distance education program.**

Learning objectives are consistent with those of the face-to-face Master of Science in Finance program (see section B.2 of the main proposal). The evaluations that will be used can include participation in online discussion boards, presentations, papers, and multiple choice questions, among other means. Each of these can be used to judge whether students have met the learning objectives and planned learning outcomes for the course. The learning management system makes it possible to save and document the results over time

Appendix D

Finance Information

TABLE 1: RESOURCES:					
Resource Categories	2017	2018	2019	2020	2021
1. Reallocated Funds	\$0	\$0	\$0	\$0	\$0
2. Tuition/Fee Revenue (c + g below)	\$1,376,580	\$3,303,260	\$4,144,954	\$4,576,318	\$5,095,379
a. Number of F/T Students	5	10	10	10	10
b. Annual Tuition/Fee Rate	\$53,931	\$55,549	\$57,215	\$58,932	\$60,700
c. Total F/T Revenue (a x b)	\$269,654	\$555,487	\$572,152	\$589,316	\$ 606,996
d. Number of P/T Students	95	240	302	331	366
e. Credit Hour Rate	\$1,075	\$1,097	\$1,119	\$1,141	\$1,164
f. Annual Credit Hours	14	14	14	14	14
g. Total P/T Revenue (d x e x f)	\$1,056,926	\$2,697,773	\$3,522,802	\$3,937,002	\$4,438,383
3. Grants, Contracts & Other External Sources	\$0	\$0	\$0	\$0	\$0
4. Other Sources	\$0	\$0	\$0	\$0	\$0
TOTAL (Add 1 – 4)	\$1,376,580	\$3,303,260	\$4,144,954	\$4,576,318	\$5,095,379

Resources narrative

1. Reallocated Funds. No funds will be reallocated from existing campus resources.
2. Tuition/Fee Revenue. Tuition revenue is the product of the incremental number of P/T students, the credit hour rate, and the total annual credit hours. In addition, each new student is charged a \$500 matriculation fee upon entering the program. For AY 2017, the rate per credit hour is \$1,265. An average of 15% discount is granted through student aid, yielding \$1,075. It is anticipated that this rate will increase by 2% per year through 2021. The average student completes 14 credit hours (7 courses) per year.
3. Grants and Contracts. There are no grants or contracts that will provide resources for this program.
4. Other sources: The program does not expect any funding from other sources.

TABLE 2: EXPENDITURES:					
Expenditure Categories	2017	2018	2019	2020	2021
1. Faculty (b + c below)	\$440,860	\$1,303,123	\$2,102,915	\$2,372,780	\$2,660,432
a. # Sections offered	15.0	46.2	75.4	83.4	91.7
b. Total Salary	\$329,000	\$972,480	\$1,569,339	\$1,770,732	\$1,985,397
c. Total Benefits	\$111,860	\$330,643	\$533,575	\$602,049	\$675,035
2. Admin. Staff (b + c below)	\$43,550	\$66,632	\$90,619	\$115,539	\$141,420
a. # FTE	0.5	0.75	1	1.25	1.5
b. Total Salary	\$32,500	\$49,725	\$67,626	\$86,223	\$105,537
c. Total Benefits	\$11,050	\$16,907	\$22,993	\$29,316	\$35,883
3. Support Staff (b+c below)	\$30,263	\$51,446	\$69,967	\$89,208	\$109,190
a. # FTE	0.5	0.75	1	1.25	1.5
b. Total Salary	\$22,500	\$38,250	\$52,020	\$66,326	\$81,182
c. Total Benefits	\$7,763	\$13,196	\$17,947	\$22,882	\$28,008
4. Equipment	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
5. Library	\$138,134	\$339,534	\$491,153	\$566,923	\$624,174
6. New or Renovated Space	\$0	\$0	\$0	\$0	\$0
7. Other Expenses	\$329,150	\$392,200	\$443,800	\$485,100	\$532,950
TOTAL (Add 1 – 7)	\$991,956	\$2,162,935	\$3,208,454	\$3,639,550	\$4,078,166

Expenditures narrative

1. Faculty. The number of incremental sections is computed from the incremental student body, with each student taking 7 sections per year. The Carey School's average class size of 30 is used to determine the number of incremental sections that will be required. Faculty cost per section is computed based on the % of faculty salary attributed to teaching multiplied by total faculty base salaries and then divided by the total number of sections to be taught. This number increases by 2% per year. Benefits are added to the salary cost using the Johns Hopkins standard multiplier of 34%.
2. Administrative Staff. This includes salaries for administrative staff members, including academic advisors, career advisors and instructional designers, increasing by 2% per year.
3. Support Staff. This includes salaries for Help desk, technical staff, and administrative support staff members, increasing 2% per year.
4. Equipment. Because these incremental courses are online, the school will incur costs related to hosting and managing the courses in an online setting.
5. Library. The school pays for library services at an average rate of \$1,500 per student. This rate is expected to remain constant over this planning horizon.
6. New or Renovated Space. No new or renovated space will be needed.
7. Other Expenses. The school will expend money to build and refine online courses for the Master of Science in Finance program over the entire planning horizon. Other expenses also include costs associated with marketing the new online option of the Master of Science in Finance.