



1. Call to Order
2. Approval of the September 6, 2017 Senate Minutes (Action)
3. Report of the Chair
4. PCC Proposal to Establish a Post-Baccalaureate Certificate in Financial Risk Management (Senate Document #17-18-09) (Action)
5. PCC Proposal to Establish a Post-Baccalaureate Certificate in Leading and Managing Healthcare Transformation (Senate Document #17-18-10) (Action)
6. Special Order of the Day  
Marcio A. Oliveira  
Assistant Vice President  
Division of Information Technology  
*Web Accessibility Policy*
7. Special Order of the Day  
Ja’Nya Banks, Co-Chair  
Lucy Dalglish, Co-Chair  
Warren Kelley, Co-Chair  
Joint President/Senate Inclusion & Respect Task Force  
*Overview of Task Force Charge & Process*
8. New Business
9. Adjournment



## **CALL TO ORDER**

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Senate Chair Falvey called the meeting to order at 3:17 p.m.

## **SPECIAL ORDER: PRESIDENTIAL BRIEFING**

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President Loh welcomed new Senators and thanked all Senators for their service. He also commented on the importance of shared governance and the Senate to the University. He emphasized the importance of their input and perspective on the critical issues that the University and the country are facing. President Loh thanked the Senate's committee chairs for their leadership and commented on the importance of the issues and significant workload that they would undertake this year.

## **APPROVAL OF THE MAY 4, 2017 SENATE MINUTES (ACTION)**

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Chair Falvey asked for additions or corrections to the minutes of the May 4, 2017, meeting; hearing none, he declared the minutes approved as distributed.

## **REPORT OF THE CHAIR**

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Falvey announced that two UMD staff members were selected as recipients of the 2017 BOR Staff Awards: Audrey Stewart, Facilities Management for Exceptional Contribution to the Institution and/or Unit to Which the Person Belongs (non-exempt) and Jenna Beckwith, University Health Center for Outstanding Service to Students in an Academic or Residential Environment (exempt). The Senate recognized both awardees for their accomplishments.

Falvey stated that the Joint President/Senate Inclusion & Respect Task Force would be co-chaired by Ja'Nya Banks, Student Government Association (SGA) Director of Diversity, Lucy Dalglish, Dean of the Merrill College of Journalism, and Warren Kelley, Assistant Vice President for Student Affairs and includes faculty, staff, students, and alumni representatives. The task force was charged to consider how best to nurture a climate that is respectful and inclusive of all members of our campus community, stands against hate, and reaffirms the values that define us a University. The task force will collect feedback from the campus community at campus-wide open forums and from the Senate at a future meeting and plans to report to the Senate in late April.

Falvey noted that the School of Public Health was celebrating its 10th Anniversary on September 27, 2017. The Senate recognized Dean Lushniak and the members of the School of Public Health for their accomplishments over the last ten years.

## SPECIAL ORDER OF THE DAY

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### **Reka Montfort, Executive Secretary & Director, University Senate** ***Orientation: Senators, Senate Meetings, and Shared Governance***

Reka Montfort, Executive Secretary & Director, provided an overview of the role of senators, the operations of Senate meetings, and the University's principles of shared governance. She noted that shared governance at the University means governance shared by faculty, staff, students, and administrators and the importance of the collective advice provided through this process. She also provided an overview of the Senate structure and how the Senate committees and Senate Executive Committee interact with the Senate. Montfort provided information on the role of the Senate, including advising the President on policy matters, guiding documents, and academic programs. She also provided information on the Senate leadership and the distribution of Senators. Montfort gave an overview of the Senate standing committees and their role. She noted that Senate legislation can be tracked on the Senate website at <http://www.senate.umd.edu/senateBills/>. There anyone can search for past bills, review current bills, and review the stages of review as well as any related documents. Montfort provided an overview of Senate meetings including scheduling, accessing materials, protocol for speaking, voting, and senator responsibility. She stressed the importance of active participation of senators by coming to meetings prepared having reviewed all the materials in advance and engaging constituents before and after Senate meetings. Montfort concluded her presentation by giving an overview of the issues that the Senate will consider this upcoming year.

### **2016-2017 SENATE LEGISLATION LOG (SENATE DOCUMENT #17-18-01)** **(INFORMATION)**

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Falvey explained that the legislation log had been provided to the Senate as an informational item. It gives an overview of the work completed by the Senate last year and includes any pending items that will carry over to this year.

### **APPROVAL OF THE 2017-2018 COMMITTEE & COUNCIL SLATES (SENATE DOCUMENT #17-18-02) (ACTION)**

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Christopher Walsh, Chair of the Committee on Committees, provided background on the selection process and made a motion to approve the standing committee and council slates as presented. He noted that KerryAnn O'Meara was replaced by Jade Wexler on the Research Council and that Ben Bederson and Ann Smith were replaced by Betsy Beise and Lisa Kiely on the Educational Affairs and APAS Committees, respectively. Walsh also stated that the remaining vacancies on the University Library Council and IT Council would be filled in accordance with the Bylaws. Falvey asked whether there was discussion on the slates; hearing none, he called for a vote of the Senate. The result was 118 in favor, 2 opposed, and 2 abstentions. **The motion to approve the revised slates as presented passed.**

### **PCC PROPOSAL TO ESTABLISH POST-BACCALAUREATE CERTIFICATE IN COMPUTING SYSTEMS (SENATE DOCUMENT #17-18-04) (ACTION)**

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Dylan Roby, Chair of the PCC Committee, presented all three proposals for post-baccalaureate certificates in computing systems, networking/software development, and wireless communications and provided background information on the proposals.

Falvey opened the floor to discussion of the PCC Proposal to Establish Post-Baccalaureate Certificate in Computing Systems (Senate Document #17-18-04); hearing none, he called for a vote on the proposal. The result was 114 in favor, 1 opposed, and 6 abstentions. **The motion to approve the proposal passed.**

### **PCC PROPOSAL TO ESTABLISH POST- BACCALAUREATE CERTIFICATE IN NETWORKING/SOFTWARE DEVELOPMENT (SENATE DOCUMENT #17-18-05) (ACTION)**

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Falvey opened the floor to discussion of the PCC Proposal to Establish Post-Baccalaureate Certificate in Networking/Software Development (Senate Document #17-18-05); hearing none, he called for a vote on the proposal. The result was 114 in favor, 1 opposed, and 6 abstentions. **The motion to approve the proposal passed.**

### **PCC PROPOSAL TO ESTABLISH POST- BACCALAUREATE CERTIFICATE IN WIRELESS COMMUNICATIONS (SENATE DOCUMENT #17-18-06) (ACTION)**

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Falvey opened the floor to discussion of the PCC Proposal to Establish Post-Baccalaureate Certificate in Wireless Communication (Senate Document #17-18-06); hearing none, he called for a vote on the proposal. The result was 112 in favor, 1 opposed, and 7 abstentions. **The motion to approve the proposal passed.**

### **REVIEW OF THE INTERIM UNIVERSITY OF MARYLAND POLICY ON STUDENT SOCIAL MEDIA PRIVACY (SENATE DOCUMENT #16-17-23) (ACTION)**

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Toby Egan, Chair of the Educational Affairs Committee presented the Review of the Interim University of Maryland Policy on Student Social Media Privacy (Senate Document #16-17-23) and provided background information on the committee's review of the interim policy.

Falvey opened the floor to discussion of the proposal.

Senator Sriram, graduate student, raised concerns about the policy's complaint process being directed through the unit administrator instead of a formal grievance policy.

Egan responded that the first step would be to notify the unit administrator but that existing grievance policies provided for a more comprehensive complaint process.

Hearing no further questions, Falvey called for a vote on the proposal. The result was 102 in favor, 5 opposed, and 8 abstentions. **The motion to approve the proposal passed.**

### **REVISIONS TO THE COLLEGE OF ARTS & HUMANITIES PLAN OF ORGANIZATION (SENATE DOCUMENT #14-15-23) (ACTION)**

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Marc Pound, Chair of the Elections, Representation, and Governance (ERG) Committee presented the Revisions to the College of Arts & Humanities Plan of Organization (Senate Document #14-15-23) and provided background information on the committee's review of the revised Plan.

Falvey opened the floor to discussion of the revised Plan; hearing none, he called for a vote. The result was 112 in favor, 0 opposed, and 8 abstentions. **The motion to approve the revised Plan passed.**

## **PROFESSIONAL TRACK FACULTY MERIT PAY POLICY (SENATE DOCUMENT #16-17-13) (ACTION)**

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Patricio Korzeniewicz, Chair of the Faculty Affairs Committee presented the Professional Track Faculty Merit Pay Policy (Senate Document #16-17-13) and provided background information on the revisions to the policy.

Falvey opened the floor to discussion of the revised policy.

Senator Callahan, professional track faculty, asked whether the committee considered that providing flexibility for local needs may lead to unfairness.

Korzeniewicz stated that the issue was considered by the committee. The committee wanted to ensure some level of flexibility but the norms for what all policies should follow are stipulated in the recommendation to provide consistency across units.

Falvey called for a vote on the proposal. The result was 109 in favor, 3 opposed, and 7 abstentions. **The motion to approve the proposal passed.**

## **NEW BUSINESS**

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There was no new business.

## **ADJOURNMENT**

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The meeting was adjourned at 4:19 p.m.



**Establish a Post-Baccalaureate Certificate in Financial Risk Management  
(PCC ID #16066)**

**PRESENTED BY** Dylan Roby, Chair

**REVIEW DATES** SEC – September 19, 2017 | SENATE – October 5, 2017

**VOTING METHOD** In a single vote

**RELEVANT  
POLICY/DOCUMENT** N/A

**NECESSARY  
APPROVALS** Senate, President, Chancellor, and Maryland Higher Education Commission

**ISSUE**

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The Robert H. Smith School of Business proposes to establish a 12-credit Post-Baccalaureate Certificate in Financial Risk Management. The purpose of this certificate is to offer professional development to practitioners and regulators in the area of financial risk management. Following the financial crisis and enactment of the Dodd-Frank Wall Street Reform and Consumer Protection Act, financial institutions, corporate treasuries, and financial regulators are placing ever greater emphasis on measuring and managing the risks confronting their organizations or the ones they regulate. Many professionals who are responsible for these activities require additional skills and exposure to recent advancements in the field. Consequently, the certificate will be beneficial to people currently in these roles as well as those looking to move into this field.

The curriculum will consist of six (6) courses that are each two (2) credits, for a total of 12 credits. Five of the courses are required (core) and the sixth course can be selected from a menu of offerings. The five core courses are as follows (course numbers pending):

- Risk Governance, Regulatory Risk, and Ethics
- Risk Management Analytical Methods
- Interest Rate Risk Measurement and Management
- Credit Risk Measurement
- Market, Liquidity, and Operational Risk Management

The elective course will be selected from the following list of courses (course numbers pending):

- Interest Rate Risk Hedging with Stochastic Interest Rates
- Statistical Factor Models in Risk Optimization
- Portfolio Optimization for Risk Analysis
- Model Risk and Validation
- Securitization, Reinsurance, and Risk Transfer

With the exception of the elective courses Model Risk and Validation, and Securitization, Reinsurance, and Risk Transfer, all of the courses have already been offered through the Master of Finance program.

This proposal was approved by the Graduate School Programs, Curricula, and Courses committee on April 28, 2017, and was approved by the Senate Programs, Curricula, and Courses committee on September 1, 2017.

## **RECOMMENDATION(S)**

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The Senate Committee on Programs, Curricula, and Courses recommends that the Senate approve this new certificate program.

## **COMMITTEE WORK**

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The committee considered this proposal at its meeting on September 1, 2017. Michael Faulkender, Associate Dean of Master's Programs from the Robert H. Smith School of Business, presented the proposal. The proposal was unanimously approved by the committee.

## **ALTERNATIVES**

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The Senate could decline to approve this new certificate program. If the Senate declines to approve this certificate program, the university will lose an opportunity to provide specialized training in financial risk management for students who are not interested in enrolling in a full Master's program in order to receive this training.

## **RISKS**

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There are no risks to the University.

## **FINANCIAL IMPLICATIONS**

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There are no significant financial implications with this proposal as most of the courses and administrative processes already exist under the Master of Finance program.

University of Maryland PCC  
Program/Curriculum/Unit Proposal

PCC Log No: 16066

Program: Certificate in Financial Risk Management

Department/Unit:

College/School: Robert H. Smith School of Business

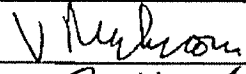
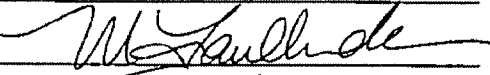
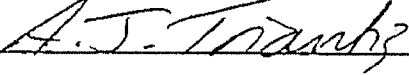
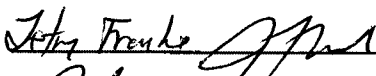
Proposal Contact Person (with email):

Type of Action (check one):

- Curriculum change (includes modifying minors, concentrations/specializations and creating informal specializations)
  - Curriculum change is for an LEP Program
- Rename a program or formal Area of Concentration
- Establish/Discontinue a formal Area of Concentration
- Other:
- Establish a new academic degree/certificate program
- Create an online version of an existing program
- Establish a new minor
- Suspend/Discontinue a degree/certificate program
- Establish a new Master or Certificate of Professional Studies program
- New Professional Studies program will be administered by Office of Extended Studies

*Italics indicate that the proposal must be presented to the full University Senate for consideration.*

Approval Signatures - Please print name, sign, and date. For proposals requiring multiple unit approvals, please use additional cover sheet(s).

1. Department Committee Chair \_\_\_\_\_
2. Department Chair Vejslav Maksimovic 
3. College/School PCC Chair Michael Faulkender 
4. Dean Alexander J. Triantis 
5. Dean of the Graduate School (if required) John Frank  5/27/2017
6. Chair, Senate PCC Dylan Reby 9/1/17
7. University Senate Chair (if required) \_\_\_\_\_
8. Senior Vice President and Provost \_\_\_\_\_

Instructions:

When approved by the dean of the college or school, please send the proposal and signed form to the Office of the Associate Provost for Academic Planning and Programs, 1119 Main Administration Building, Campus-5031, and email the proposal document as an MSWord attachment to [pcc-submissions@umd.edu](mailto:pcc-submissions@umd.edu).

Summary of Proposed Action (use additional sheet if necessary):

The program will address the tools and securities used to estimate and manage the risk taking activities of both financial institutions and non-financial corporations. The curriculum will integrate the mathematical modeling of financial securities with the statistical tools used to parameterize these models to facilitate managing changes in market conditions and individual investment outcomes. Students seeking both a certificate and a Master degree offered by the Smith School may double count course credits towards both the certificate and the Master degree. A student enrolled in the MBA program can count all twelve of the certificate course credits towards the MBA degree. Only one certificate program can be double counted towards a Master degree. Certificate course credits cannot be counted towards the completion of another certificate program. The program will be offered on the UMCP campus, at our DC location, our Baltimore facility, or our facility at the Universities of Shady Grove. Classes will be held in the late afternoon or evening to accommodate the schedules of our working professional students.

Unit Code(s) (to be entered by the Office of Academic Planning and Programs):



PROPOSAL FOR  
NEW ACADEMIC PROGRAM

UNIVERSITY OF MARYLAND AT COLLEGE PARK, MARYLAND  
POST-BACCALAUREATE CERTIFICATE: RISK MANAGEMENT

ROBERT H. SMITH SCHOOL OF BUSINESS

DEAN **Alexander Triantis**

**CERTIFICATE IN FINANCIAL RISK MANAGEMENT**

Proposed Initiation Date: Fall 2017

## **I. OVERVIEW**

The Robert H Smith School of Business is proposing a new Post-Baccalaureate Certificate in Financial Risk Management. The purpose of this certificate is to offer professional development to practitioners and regulators in the area of financial risk management. Following the financial crisis and enactment of Dodd-Frank, financial institutions, corporate treasuries, and financial regulators are placing ever greater emphasis on measuring and managing the risks confronting their organizations or the ones they regulate. Many responsible for these activities require additional skills and exposure to recent advancements in the field. The certificate will be beneficial to people currently in these roles as well as those looking to move into this field.

The course sequence will consist of six (6) courses that are each two (2) credits, for a total of twelve credits. Five of the courses are required (core) and the sixth course can be selected from a menu of offerings. The content of these courses are necessary for any practitioner engaging in financial risk management as they rigorously cover the models used to manage risk emanating from fixed income, equity, and derivatives securities. The elective selection depends upon the particular sector within finance the student is interested in pursuing.

Upon completion, the participants will receive a Post-Baccalaureate Certificate in Financial Risk Management from the University of Maryland. Completers will also have the option of transferring these credits toward a Master of Finance (MFin) or Master of Business Administration (MBA) and/or certification in the field.

## **II. RATIONALE**

The Post-Baccalaureate Certificate will meet the needs of practitioners and regulators looking to enhance their skills in financial risk management, particularly given the changes arising from implementation of Dodd-Frank. The financial crisis punctuates the critical need for robust risk management practices and governance. The demand for risk professionals has accelerated as regulation has increased along with a greater recognition in the industry that risk management is an essential component to the long-term viability of the franchise. As analytical approaches for measuring and managing risk evolved in the years leading up to the crisis, it and the governance structures that were supposed to ensure that companies took prudent risks failed many institutions. This risk management program focuses on identification and measurement of various risks affecting financial institutions as well as how those risks can be transferred in the marketplace. Risk management is as much art as it is science and both features are essential to effective risk management.

As one of the top academic finance departments in the world, the finance faculty at the University of Maryland, College Park, is positioned well to offer this post-baccalaureate certificate program. In addition, our proximity to Washington, DC provides for easy access to regulators and policy makers to supplement the academic experience this program will offer in its courses. It also means that there is a large population of potential applicants to such a program as regulatory agencies and regional financial institutions look to enhance their skills to

participate in the ever-evolving financial regulatory system around risk management. Given the important role that risk management has the potential to offer to companies as well as the overall global financial system, it is imperative that practitioners and regulators have the knowledge and skills to operate in today's complex financial environment.

### **III. Nature of the Program**

The Financial Risk Management certificate program will address the tools and securities used to estimate and manage the risk taking activities of both financial institutions and non-financial corporations. The curriculum will integrate the mathematical modeling of financial securities with the statistical tools used to parameterize these models to facilitate managing changes in market conditions and individual investment outcomes. These courses will incorporate the models commonly used by financial institutions and regulators, particularly following implementation of Dodd-Frank. It will also expose students to the technology platforms that many institutions use in their risk management activities.

The program will be offered on the UMCP campus, 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. Classes will be held in the late afternoon or evening to accommodate the schedules of our working professional students.

Our course format is on a seven-week (plus a final exam in the eighth week) term for three hours and forty minutes per week. Students may take two courses per term so that they could complete the program in one academic year. Students may also elect to complete the courses at their own pace. As stipulated in University policy, students will need to complete the coursework within five years of enrolling.

Students seeking both a certificate and a Masters degree offered by the Smith School (for instance the Master of Finance, the Master of Business Administration, or the currently pending Master of Quantitative Finance) may double count course credits towards both the certificate and the Masters degree. A total of thirty percent of the total credits taken towards the Masters degree may be double counted towards both the certificate and the Masters degree. So a student enrolled in both the certificate program and the Master of Finance can count a total of nine credits (30% of the 30 credits in the MFin degree) towards the certificate. A student enrolled in the MBA program can count all twelve of the certificate course credits towards the MBA degree. Only one certificate program can be double counted towards a Masters degree. Certificate course credits cannot be counted towards the completion of another certificate program.

### **IV. Title of Certificate:** Post-Baccalaureate Certificate in Financial Risk Management

## V. Course and Catalog Descriptions:

### Core Courses:

**Risk Governance, Regulatory Risk, and Ethics cross listed with BUFN754 Corporate Risk Management:** This course explores the core principles of risk governance including roles and responsibilities among boards of directors, risk committees, executive management, and business functions. Creation of risk appetite statements, delegations of authorities, risk-based incentive compensation design, position and concentration limits are among the topics featured. Understanding regulatory risk and its implications on the firm are explored. In addition, applied examples from the financial crisis are used to draw comparisons between standard financial performance measure such as return on equity (ROE) and metrics that are risk-adjusted such as risk-adjusted return on capital (RaRoC).

**Risk Management Analytical Methods cross listed with BUFN766 Financial Engineering:** Essential skills for applied quantitative risk management are developed in this course. This course explores the intersections of data management, financial and statistical software applications and applied finance and risk management. Applied risk management problems are analyzed using such applications as Excel and Visual Basic (VBA), SAS and Matlab. Development of tools for profiling credit exposures, portfolio hedging and risk optimization are featured. Such techniques as Monte Carlo simulation and back simulation, implementation of term structure models and stochastic analysis are among the topics covered.

**Interest Rate Risk Measurement and Management cross listed with BUFN762 Fixed Income Analysis:** Financial Institutions are naturally exposed to interest rate risk, or the risk that increases in interest rates create adverse movements in the value of fixed-income portfolios. This issue is heightened by the extraordinarily low interest rate environment currently and expectations for rising rates going forward. In this course, how banks are exposed to interest rate risk is explored along with approaches used to measure these exposures such as duration and convexity. The course also describes interest-rate risk hedging under a deterministic interest rate environment. On balance sheet hedging, with duration and convexity matching adjusted for time passage, is covered. In addition, off-balance sheet hedging using forward contracts is introduced.

**Credit Risk Measurement cross listed with BUFN 772 Bank Management:** This course begins by exploring the components of credit loss, starting with viewing borrower (individual, corporation or sovereign) default in the form of an option contract. Translating that option into an obligor's probability of default (PD) and loss given default (LGD) is reviewed. Credit portfolio management activity leveraging such techniques as KMV are explored. The process for developing the Allowance for Loan & Lease Losses (ALLL) and the new FASB Current Expected Credit Loss (CECL) framework will be examined. Understanding how to use market views on credit risk such as credit spreads and how they tie into the default event is also featured. Differentiating expected loss from unexpected loss is examined along with the concept of economic capital. Counterparty risk is also examined in the context of the collateral valuation allowance (CVA) approach to measure this type of exposure.

This course also takes a close look at various mechanisms available to banks to transfer credit risk to the capital markets. A high-level discussion of such structured financial products as credit

default swaps (CDS), collateralized debt obligations (CDOs), and credit-linked notes (CLNs) are among the featured instruments for discussion. Basic valuation techniques and mechanics of how these products work are explored. Reinsurance, securitization and other risk transfer structures are included in this review.

**Market, Liquidity, and Operational Risk Management, cross-listed with BUFN 758R Financial Institution Risk Management:** This course focuses on market risk emanating from the trading book, interest rate risk associated with fixed income positions and the firm's liquidity risk profile. Value-at-risk, or VaR is introduced. Along with the concept behind VaR, the importance of setting a confidence level and time horizon for measuring VaR and how it can be used in managing risk, strengths and limitations of VaR are presented. Understanding considerations in aggregating VaR across lines of business and risks is covered in this course.

The course also introduces a number of concepts and techniques essential to mitigate liquidity risk for the enterprise. A simple static maturity ladder, for example, leveraging a stylized bank balance sheet of cash inflows and outflows is used to portray a bank's net position and any shortfalls for analysis. The importance of liquidity contingency planning and development of stress scenarios is also discussed. Finally, current regulatory requirements on bank liquidity including the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) calculations are discussed in some detail.

Operational risk has become entrenched in the vernacular of regulators and banks alike in the wake of the financial crisis. This course focuses on the identification of operational risk arising in the form of losses attributed to breakdowns in process, people and technology. Simple tools to identify and remediate these risks including risk control self-assessments (RCSA's) are described using applied examples. Models used to quantify the frequency of operational losses and their severity such as those that might be used in determining Basel capital requirements are examined along with data issues used in these exercises.

#### **Elective Offerings:**

**Interest Rate Risk Hedging with Stochastic Interest Rates cross listed with BUFN765 Fixed Income Derivatives:** The course surveys an array of financial instruments that can be used measure and hedge interest rate risk embedded in fixed-income portfolios such as exchange-traded bond options; bonds with embedded options; floating rate notes; caps, collars, and floors; floating rate notes with embedded options. Also surveys advanced tools for interest-rate and fixed-income portfolio management, including the use of derivative securities, and the application of binomial trees for analysis of options, and a sound understanding of stochastic yield curves.

**Statistical factor models in risk optimization cross listed with BUFN 764 Quantitative Investment Strategy:** Provides an introduction to quantitative techniques of selecting equities, as used commonly among long-short equity hedge funds and other quantitative equity asset management companies. Statistical factor models are developed to locate stocks with higher expected returns, based on the observable characteristics of the stocks. Implementation issues, including statistical estimation, back-testing and portfolio construction, are covered, as is performance evaluation.

**Portfolio Optimization for Risk Analysis cross listed with BUFN763 Portfolio Management:** Provides training that is important in understanding the investment process - the buy side of the financial world. Specifically, the objective is to provide necessary tools for portfolio optimization for risk analysis along with other concepts that focus on portfolio risk. The course explores techniques to use financial markets data to estimate portfolio choice and equilibrium pricing models and their implications for constructing efficient portfolios.

**Model Risk and Validation (New Course):** The use of analytic models has risen greatly over time at banks and developing an effective structure to manage the risk of models is the other focus area of the session. Understanding the limitations of models, the data on which they are developed, the need for initial and ongoing validation as well as supervisory expectations around model use are featured topics. This course also provides an overview of model governance practices, oversight and controls drawing upon such regulatory guidance on models as OCC’s Supervisory Guidance on Model Risk Management Bulletin 2011-12.

Conducting periodic stress testing of your bank’s portfolio is essential to ensuring management and the board has an understanding of how well your firm is able to withstand various adverse shocks. This course reviews how to construct a robust stress testing capability including leveraging vendor- or regulatory-supplied scenarios as well as your own. Features of the Federal Reserve’s CCAR and OCC DFAST stress tests provide context for how these activities can be applied to banks of all size and complexity.

**Securitization, Reinsurance, and Risk Transfer (New Course):** This course explores various forms of risk transfer including asset-backed securitization (ABS) markets, and the use of reinsurance structures and other structured financial products to manage risk positions. The structure of securitization markets and the mechanics of the securitization process is reviewed as well as the valuation of different securitization instruments such as mortgage-backed securities (MBS) and commercial MBS (CMBS), among others and their derivatives such as interest-only and principal-only strip securities. The use of reinsurance contracts as a risk transfer mechanism are examined including excess-of-loss (XOL) and quota share arrangements.

**VI. Course Sequence**

Below is a table showing how a student can complete the required coursework over a two-semester period as a part-time student. Each term is eight weeks long so two terms comprise one semester.

**Student Schedule for Part-time certificate, completed in two semesters**

Fall A	Fall B	Spring C	Spring D
BUFN 754 BUFN 766	BUFN 762	BUFN 772 BUFN 758R	BUFN (Elective)

## VII. Faculty

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.

Faculty who teach courses in this program shall be drawn from the faculty of the Robert H. Smith School of Business, particularly the finance department. The finance department of the Robert H Smith School of Business currently has 28 FTE faculty. Twenty-two of these are full-time tenure / tenure track. All of these twenty-two faculty have doctoral degrees in economics, finance, or industrial engineering. Six additional full-time clinical faculty also have graduate degrees in economics, finance, or business.

## VIII. Learning Outcomes and Assessment

**Learning Outcome 1: Knowledge of Financial Risk Management.** *Smith certificate students understand key principles underlying financial risk management.*

- **Gain an understanding of the array of risk types facing the financial services sector and be able to identify, measure and manage these risks**
- **Introduce core risk management principles related to effective governance, risk-taking and incentive alignment in the organization**
- **Derive an understanding of the core concepts, theories and applications of key risks facing financial institutions**

**Learning Outcome 2: Statistical Proficiency.** *Smith certificate students demonstrate statistical knowledge through interpreting financial models*

- **Apply statistical methods to financial and risk management decision making**
- **Use economic techniques to parameterize financial and risk models**
- **Be able to extract and manipulate large datasets for applied risk analysis**
- **Learn the limitations of risk data, models and methodologies, and what practices are important to ensure adequate performance of analytic tools for risk management over time**

**Learning Outcome 3: Analytical Thinking.** *Smith certificate students evaluate and articulate risk strategies*

- **Cultivate an approach to identifying, measuring and mitigating risks based on a combination of empirical analysis augmented by business judgment**
- **Develop skills for identifying emerging risks and developing strategies for mitigating risk outside the firm's risk appetite**
- **Develop an appreciation for the balance between risk and return across products and services of financial services companies**

For all learning objectives, the measures, criterion and method of assessment are:

Measure:	Students will be required to pass a set of questions delivered as part of the final exam in each core course.
Criterion:	At least 90% of students will receive an average rating of “Meets Standards” or better on the core course final exam questions. The Academic Director will meet with students rated below “Meets Standards” to help improve their performance or determine their continued participation in the program.
Assessment:	Every Year, starting in the 2017-2018 academic year.

## **IX. Admissions Criteria**

Applicants to the Financial Risk Management certificate 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, one letter 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 Financial Risk Management certificate 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.

Admissions criteria shall be similar to the criteria used to evaluate students seeking admission to the Master of Finance program. As students in the certificate program will be enrolling in classes that are also offered in the Master of Finance program, it is essential that students in both programs have similar minimum qualifications to ensure that all course enrollees have sufficient preparation for the program. While some students in the certificate program may already have Master of Finance or Master of Business Administration degrees, the ever changing nature of risk management and regulatory compliance in this area would still necessitate continuing education in this topic. The faculty of the Smith school have experience teaching courses with heterogeneous student groups. In fact the variation in experience enhances the learning outcomes



because it facilitates discussion of application of the material by those who have been in practitioner or regulatory roles in risk management.

## **X. Off-Campus Programs**

In addition to holding classes on the UMCP campus, some sections of the program may 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.

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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 Financial Risk Management certificate 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)
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- Masters Only Education Fairs (Fall And Spring) Throughout the U.S.
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- 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

## **XII. Resources**

## Resources and Expenditures

### Resources

Resources Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds	\$ -	\$ -	\$ -	\$ -	\$ -
2. Tuition/Fee Revenue (c+g below)	\$ 295,560	\$ 304,427	\$ 313,560	\$ 322,966	\$ 332,655
a. #FT Students	0	0	0	0	0
b. Annual Tuition/Fee Rate	\$ -	\$ -	\$ -	\$ -	\$ -
c. Annual FT Revenue (a x b)	\$ -	\$ -	\$ -	\$ -	\$ -
d. # PT Students	15	15	15	15	15
e. Credit Hour Rate	\$ 1,642	\$ 1,691	\$ 1,742	\$ 1,794	\$ 1,848
f. Annual Credit Hours	12	12	12	12	12
g. Total Part Time Revenue (d x e x f)	\$ 295,560	\$ 304,427	\$ 313,560	\$ 322,966	\$ 332,655
3. Grants, Contracts, & Other External Sources	\$ -	\$ -	\$ -	\$ -	\$ -
4. Other Sources	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL (Add 1 - 4)</b>	<b>\$295,560</b>	<b>\$304,427</b>	<b>\$313,560</b>	<b>\$322,966</b>	<b>\$332,655</b>

Tuition and fee revenue is based on the approved resident rates for the Smith School of Business.

### Expenditures

Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Faculty (b+c below)	\$108,000	\$111,240	\$114,577	\$118,015	\$121,555
a. #FTE	0.4	0.4	0.4	0.4	0.4
b. Total Salary	\$100,000	\$103,000	\$106,090	\$109,273	\$112,551
c. Total Benefits	\$8,000	\$8,240	\$8,487	\$8,742	\$9,004
2. Admin. Staff (b+c below)	\$19,950	\$19,950	\$19,950	\$19,950	\$19,950
a. #FTE	1.0	1.0	1.0	1.0	1.0
b. Total Salary	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
c. Total Benefits	\$4,950	\$4,950	\$4,950	\$4,950	\$4,950
3. Total Support Staff (b+c below)	\$29,925	\$30,823	\$31,747	\$32,700	\$33,681
a. #FTE	0.3	0.3	0.3	0.3	0.3
b. Total Salary	\$22,500	\$23,175	\$23,870	\$24,586	\$25,324
c. Total Benefits	\$7,425	\$7,648	\$7,877	\$8,113	\$8,357
4. Equipment	\$0	\$0	\$0	\$0	\$0
5. Library	\$0	\$0	\$0	\$0	\$0
6. New or Renovated Space	\$0	\$0	\$0	\$0	\$0
7. Other Expenses: Operational Expenses*	\$104,556	\$105,443	\$106,356	\$107,297	\$108,266
<b>TOTAL (Add 1 - 7)</b>	<b>\$262,431</b>	<b>\$267,455</b>	<b>\$272,631</b>	<b>\$277,961</b>	<b>\$283,451</b>

\*Operational expenses include program advertising and scholarships.



## **Establish a Post-Baccalaureate Certificate in Leading and Managing Healthcare Transformation (PCC ID #16067)**

**PRESENTED BY** Dylan Roby, Chair

**REVIEW DATES** SEC – September 19, 2017 | SENATE – October 5, 2017

**VOTING METHOD** In a single vote

**RELEVANT POLICY/DOCUMENT** N/A

**NECESSARY APPROVALS** Senate, President, Chancellor, and Maryland Higher Education Commission

### **ISSUE**

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The Robert H. Smith School of Business proposes to establish a 12-credit Post-Baccalaureate Certificate in Leading and Managing Healthcare Transformation. In 2015, total spending on healthcare reached a staggering \$3 trillion. Yet, despite extraordinary expenditure, the US healthcare system suffers from significant deficiencies with respect to both healthcare quality and cost. The healthcare sector is exceedingly volatile. As landmark legislation such as the Affordable Care Act of 2010 has fundamentally altered the healthcare landscape, policy makers and executives are increasingly concerned about the quality and cost of health care delivery. The health care industry is constantly coping with change, from the rise of pay-for-performance reimbursement practices to the evolving nature of the consumer market. Against this backdrop of transformational change, healthcare executives, administrators, and providers need a new set of knowledge, skills, and competencies to develop strategies and practices that will aid them in successfully navigating the constantly changing healthcare landscape.

The curriculum will consist of four three-credit courses for a total of 12 credits. The four core courses are as follows (course numbers pending):

- Healthcare Operations Management and Marketing
- Health Informatics and Information Technologies
- Current Topics in Healthcare Transformation
- Health Economics and Financing

From these courses, students will understand key principles and their applications for healthcare strategy development and policy-making. Students will demonstrate proficiency in formulating appropriate healthcare leadership plans, and they will develop their knowledge of healthcare information systems and data analytics.

This proposal was approved by the Graduate School Programs, Curricula, and Courses committee on April 28, 2017, and was approved by the Senate Programs, Curricula, and Courses committee on September 1, 2017.

## **RECOMMENDATION(S)**

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The Senate Committee on Programs, Curricula, and Courses recommends that the Senate approve this new certificate program.

## **COMMITTEE WORK**

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The committee considered this proposal at its meeting on September 1, 2017. Michael Faulkender, Associate Dean of Master's Programs from the Robert H. Smith School of Business, presented the proposal. The proposal was approved by the committee.

## **ALTERNATIVES**

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The Senate could decline to approve this new certificate program. If the Senate declines to approve this certificate program, the university will lose an opportunity to provide specialized training in leading and managing healthcare transformation for students who do not wish to enroll in a full Master's program in order to receive this training.

## **RISKS**

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There are no risks to the University.

## **FINANCIAL IMPLICATIONS**

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There are no significant financial implications with this proposal as the courses and administrative processes already exist through Robert H. Smith School of Business master's programs.

**University of Maryland PCC  
Program/Curriculum/Unit Proposal**

**PCC Log No:** 16067

**Program:** Certificate in Leading and Managing Healthcare Transformation

**Department/Unit:**

**College/School:** Robert H. Smith School of Business

**Proposal Contact Person (with email):**

**Type of Action (check one):**

- Curriculum change (includes modifying minors, concentrations/specializations and creating informal specializations)
  - Curriculum change is for an LEP Program
- Rename a program or formal Area of Concentration
- Establish/Discontinue a formal Area of Concentration
- Other:
- Establish a new academic degree/certificate program
- Create an online version of an existing program
- Establish a new minor
- Suspend/Discontinue a degree/certificate program
- Establish a new Master or Certificate of Professional Studies program
  - New Professional Studies program will be administered by Office of Extended Studies

*Italics indicate that the proposal must be presented to the full University Senate for consideration.*

**Approval Signatures - Please print name, sign, and date. For proposals requiring multiple unit approvals, please use additional cover sheet(s).**

1. Department Committee Chair \_\_\_\_\_
2. Department Chair Ritu Agarwal Ritu Agarwal / Michael Fu
3. College/School PCC Chair Michael Faulkender M Faulkender
4. Dean Alexander J. Triantis AJ Triantis
5. Dean of the Graduate School (if required) Jethy Frank J Frank 5/22/2017
6. Chair, Senate PCC Dylan Roby Dylan Roby 9/1/17
7. University Senate Chair (if required) \_\_\_\_\_
8. Senior Vice President and Provost \_\_\_\_\_

**Instructions:**

When approved by the dean of the college or school, please send the proposal and signed form to the Office of the Associate Provost for Academic Planning and Programs, 1119 Main Administration Building, Campus-5031, **and** email the proposal document as an MSWord attachment to [pcc-submissions@umd.edu](mailto:pcc-submissions@umd.edu).

**Summary of Proposed Action (use additional sheet if necessary):**

This program is intended for executives and clinicians in the healthcare industry who are seeking to advance their understanding of healthcare transformation. The program consists of a set of four courses taught by leading faculty from the Smith School of Business and includes guest speakers from major healthcare organizations. Upon completion, the participants will receive a Post-Baccalaureate Certificate in Leading and Managing Healthcare Transformation from the University of Maryland. Completers will also have the option of transferring these credits toward a Masters in Information Systems (MSIS), a Master in Business Analytics (MSBA) or Master of Business Administration (MBA). A total of thirty percent of the total credits taken towards the Master degree may be double counted towards both the certificate and the Master degree. A student enrolled in the MBA program can count all twelve of the certificate course credits towards the MBA degree. Only one certificate program can be double counted towards a Master degree. Certificate course credits cannot be counted towards the completion of another certificate program. The program will be offered on the UMCP campus, at our DC location, our Baltimore facility, or our facility at the Universities of Shady Grove. Classes will be held in the late afternoon or evening to accommodate the schedules of our working professional students.

**Unit Code(s)** (to be entered by the Office of Academic Planning and Programs):

PROPOSAL FOR  
NEW ACADEMIC PROGRAM

UNIVERSITY OF MARYLAND AT COLLEGE PARK, MARYLAND  
POST-BACCALAUREATE CERTIFICATE:  
LEADING AND MANAGING HEALTHCARE TRANSFORMATION

ROBERT H. SMITH SCHOOL OF BUSINESS

DEAN **Alexander Triantis**

**CERTIFICATE IN LEADING AND MANAGING HEALTHCARE TRANSFORMATION**

Proposed Initiation Date: Fall 2017



## **I. OVERVIEW AND RATIONALE**

The health of citizens is, arguably, a crucial concern for public policy in nations across the globe, and constitutes a significant proportion of government spending. In the United States, healthcare is the largest sector of the economy, projected to account for 20% of GDP in 2024, the highest among all OECD nations. In 2015, total spending on healthcare reached a staggering \$3 trillion. Yet, despite extraordinary expenditure, the US healthcare system suffers from significant deficiencies with respect to both healthcare quality and cost.

Today, in acknowledgement of the challenges confronting it, the US healthcare system is in the midst of transformational change. Several environmental triggers have contributed to this change. In the past decade, a series of important landmark legislations such as the Affordable Care Act of 2010 and the HITECH Act of 2009 have fundamentally altered the nature of competition and the use of technology in the healthcare sector. Simultaneously, policy makers and executives are increasingly concerned about the quality and safety of healthcare delivery, as well as the unsustainable rise in costs. Changes in reimbursement practices for health service delivery from a fee-for-service model to one focused on pay-for-performance is placing increasing pressure on hospitals and other care delivery organizations to recraft their business models and practices. The nature of the consumer market is also witnessing substantial change. As the US population ages, there is a pressing need to use cost-effective methods for the management of chronic conditions such as diabetes and hypertension. Healthcare consumers today are better informed about costs and value, driven in part by the growing national emphasis on transparency. Finally, there is acknowledgement that patient engagement in healthcare is critical to realize the envisioned goals of higher quality and lower costs.

Against this backdrop of transformational change, healthcare executives, administrators, and providers need a new set of knowledge, skills, and competencies to develop strategies and practices that will aid them in successfully navigating the volatile healthcare landscape. This program is intended for executives and clinicians in the healthcare industry who are seeking to advance their understanding of healthcare transformation.

## **II. Nature of the Program**

The program consists of a set of four courses taught by leading faculty from the Smith School of Business and includes guest speakers from major healthcare organizations. Participants in the program will:

- Learn about the regulatory and policy environment of healthcare in the US
- Gain knowledge about the supply and demand dynamics of US healthcare
- Understand healthcare financing and the changing nature of the health insurance market
- Gain an understanding of the core processes of healthcare delivery
- Become familiar with tools for optimizing healthcare processes
- Learn about marketing healthcare services
- Understand the new healthcare consumer and how to enhance patient engagement
- Learn about the digital transformation of healthcare and associated technologies
- Understand the value and applications of health data analytics

- Develop skills in leading and managing change in healthcare organizations
- Learn best practices for creating and leading high performance teams
- Understand new health delivery practice changes such as accountable care organizations

Upon completion, the participants will receive a Post-Baccalaureate Certificate in Leading and Managing Healthcare Transformation from the University of Maryland. Completers will also have the option of transferring these credits toward a Masters in Information Systems (MSIS), a Masters in Business Analytics (MSBA) or Master of Business Administration (MBA). A total of thirty percent of the total credits taken towards the Masters degree may be double counted towards both the certificate and the Masters degree. So a student enrolled in both the certificate program and the Masters in Business Analytics (MSBA) can count a total of nine credits (30% of the 30 credits in the MSBA degree) towards the certificate. A student enrolled in the MBA program can count all twelve of the certificate course credits towards the MBA degree. Only one certificate program can be double counted towards a Masters degree. Certificate course credits cannot be counted towards the completion of another certificate program.

The program will be offered on the UMCP campus, 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. Classes will be held in the late afternoon or evening to accommodate the schedules of our working professional students.

Our course format is on a fifteen-week (plus a final exam in the sixteenth week) semester for two hours and forty minutes per week. Students may take two courses per semester so that they could complete the program in one academic year. Students may also elect to complete the courses at their own pace. As stipulated in University policy, students will need to complete the coursework within five years of enrolling.

**III. Title of Certificate:** Post-Baccalaureate Certificate in Leading and Managing Healthcare Transformation

**IV. Course and Catalog Descriptions (Extensive course descriptions are in Appendix 1):**

**Required Courses:**

**Healthcare Operations Management and Marketing:** This course will introduce a variety of tools that have been used to reduce costs, minimize waste and create value in the healthcare sector. This course will focus on two critical aspects marketing in the context of hospitals and other health delivery organizations: service quality and customer relationship management.

**Health Informatics and Information Technologies:** This course is targeted at professionals, managers, and consultants in healthcare to develop their understanding of core health informatics knowledge, IT concepts and management skills. Students will learn about policies, standards and methods relating to electronic health records, telehealth, data analytical systems, cybersecurity, information exchange, data quality, cloud computing, behavior change, population management, personal data collection devices, emerging digital health tools, and how these elements may be implemented and can come together as parts of a system.

**Current Topics in Healthcare Transformation:** This course will cover a range of different topics selected to enhance students’ understanding of critical policy and market changes and how to lead transformation in their organizations. Specific modules include: Accountable care organizations, Population health management, MACRA and its implications for different players in healthcare, mergers and acquisitions in the healthcare industry, security and privacy of health data, building an evidence-based culture to leverage data, developing high-performance teams, leading and managing organizational change, precision medicine and its implications

**Health Economics and Financing:** This course is designed to provide managers and professionals with a comprehensive overview of topics related to the financial aspects of healthcare. Students will gain a perspective of how the healthcare ecosystem “works” from an economics perspective. The knowledge will be helpful for better economic analysis and business management in healthcare, including topics such as payer reimbursement negotiation, rate setting, revenue cycle management, and capital projects financing.

**V. Course Sequence**

Below is a table showing how a student can complete the required coursework over a two-semester period as a part-time student. Each term is eight weeks long so two terms comprise one semester. Motivated students could complete the program in one semester, if staffing permits offering all courses in a single semester. We anticipate most students would take two or more semester to complete the program.

**Student Schedule for Part-time certificate, completed in two semesters**

Fall	Spring
Health Economics and Financing	Health Informatics and Information Technologies
Healthcare Operations Management and Marketing	Current Topics in Healthcare Transformation

**VI. Faculty**

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 Director of the Center for Health Information and Decision Systems and the Dean’s office.

Faculty who teach courses in this program shall be drawn from the faculty of the Robert H. Smith School of Business, particularly the Decisions, Operations, and Information Technology (DO&IT) area. The DO&IT area of the Robert H Smith School of Business currently has 41 full-time faculty. All of these faculty have doctoral degrees in economics, information systems, industrial engineering, operations, math or statistics.

## VII. Learning Outcomes and Assessment

**Learning Outcome 1: Knowledge of Healthcare Business Strategies and Policies and their Managerial Implications.** *Smith certificate students understand key principles and their applications for healthcare strategy development and policy-making*

- Understand the core processes and stakeholders of healthcare delivery
- Analyze healthcare policy and potential impacts on business decisions
- Apply models and frameworks to support health sector strategic decision-making
- Discern healthcare delivery practice changes and supply and demand dynamics of US healthcare
- Evaluate healthcare financing options; use spreadsheets to support healthcare financial decision-making

**Learning Outcome 2: Proficiency in Leading Healthcare Organizations.** *Smith certificate students demonstrate proficiency through formulating appropriate leadership plans.*

- Articulate skills and best practices for creating and leading high performance teams, managing human capital, and assessing performance in healthcare organizations
- Become familiar with tools for optimizing healthcare processes
- Develop plans and tactics to market healthcare services using theory, best practices and supportive tools
- Understand methods for fostering innovation in healthcare environments

**Learning Outcome 3: Knowledge of Healthcare Information Systems and Data Analytics**

- Understand key managerial issues relating to the selection, implementation and effective use of information technologies in healthcare environments
- Understand the value and applications of health data and associated analytical methods
- Discern the digital transformation of healthcare and applications of associated technologies
- Evaluate healthcare providers', managers' and consumers' information needs and the systems needed to support those needs, such as to enhance patient engagement, improve clinical performance, optimize supply chains, and promote communications.

For all learning objectives, the measures, criterion and method of assessment are:

Measure:	Students will be required to pass a set of questions delivered as part of the final exam in each core course.
Criterion:	At least 90% of students will receive an average rating of “Meets Standards” or better on the core course final exam questions. The Academic Director will meet with students rated below “Meets Standards” to help improve their performance or determine their continued participation in the program.
Assessment:	Every Year, starting in the 2017-2018 academic year.

## **VIII. Admissions Criteria**

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- Masters Only Education Fairs (Fall And Spring) Throughout the U.S.
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- Outreach to College Organizations in the Washington, D.C. Area
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- Participation in Events Targeted for Women Seeking Graduate Study (General And Non-MBA Based Events)
- Social Media and Online Advertising within U.S. Markets
- Reaching out to local meetup groups and other grass root events

## **XI. Resources**

Resources and Expenditures – Leading and Managing Health Care Transformation certificate

Resources

Resources Categories	Year 1	Year 2	Year 3	Year 4	Year 5
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d. # PT Students	15	15	15	15	15
e. Credit Hour Rate	\$ 1,642	\$ 1,691	\$ 1,742	\$ 1,794	\$ 1,848
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3. Grants, Contracts, & Other External Sources	\$ -	\$ -	\$ -	\$ -	\$ -
4. Other Sources	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL (Add 1 - 4)</b>	<b>\$295,560</b>	<b>\$304,427</b>	<b>\$313,560</b>	<b>\$322,966</b>	<b>\$332,655</b>

Tuition and fee revenue is based on the approved resident rates for the Smith School of Business.

Expenditures

Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Faculty (b+c below)	\$99,360	\$102,341	\$105,411	\$108,573	\$111,831
a. #FTE	0.4	0.4	0.4	0.4	0.4
b. Total Salary	\$92,000	\$94,760	\$97,603	\$100,531	\$103,547
c. Total Benefits	\$7,360	\$7,581	\$7,808	\$8,042	\$8,284
2. Admin. Staff (b+c below)	\$19,950	\$19,950	\$19,950	\$19,950	\$19,950
a. #FTE	1.0	1.0	1.0	1.0	1.0
b. Total Salary	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
c. Total Benefits	\$4,950	\$4,950	\$4,950	\$4,950	\$4,950
3. Total Support Staff (b+c below)	\$29,925	\$30,823	\$31,747	\$32,700	\$33,681
a. #FTE	0.3	0.3	0.3	0.3	0.3
b. Total Salary	\$22,500	\$23,175	\$23,870	\$24,586	\$25,324
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5. Library	\$0	\$0	\$0	\$0	\$0
6. New or Renovated Space	\$0	\$0	\$0	\$0	\$0
7. Other Expenses: Operational Expenses *	\$104,556	\$105,443	\$106,356	\$107,297	\$108,266
<b>TOTAL (Add 1 - 7)</b>	<b>\$253,791</b>	<b>\$258,556</b>	<b>\$263,464</b>	<b>\$268,520</b>	<b>\$273,727</b>

\*Operational expenses include program advertising and scholarships.



## Appendix 1: Detailed Course Descriptions

### **Healthcare Operations Management and Marketing**

With increasing competition, a changing regulatory environment, and informed customers with heightened value expectations, healthcare organizations are facing intense pressure to improve operational excellence and service quality. The competitive landscape is also creating the need to actively manage customer expectations and improve marketing efforts. This course provides insight into the critical strategic decisions that healthcare managers must make as they seek to improve the performance of their organizations and attract and retain customers.

In 2015 the US spent over 3 trillion dollars on healthcare, with estimates projecting an annual growth of 5.8% per annum till 2024. The healthcare system constitutes between 18-20% of the total GDP. Policy makers and practitioners acknowledge that a growth in spending is not sustainable in the long run. The operations management and performance improvement component of the course will introduce a variety of tools that have been used to reduce costs, minimize waste and create value in the healthcare sector. Topics to be covered include:

- The business of healthcare delivery
- Healthcare performance measures
- Prioritizing improvement efforts: lessons from Pareto
- Optimizing process flows
- Capacity management, staffing, and scheduling
- Variability and quality management
- Lean principles in healthcare

In the past, the nature of competition and choice in healthcare was such that healthcare organizations typically did not emphasize marketing activities, treating the customer base as virtually guaranteed. Today, healthcare consumers are making consumption decisions in an environment characterized by greater transparency and choice. Thus, it has become imperative for managers to develop strategies for actively recruiting and retaining patients. This course will focus on two critical aspects marketing in the context of hospitals and other health delivery organizations: service quality and customer relationship management. Specific topics include:

- Understanding the new healthcare customer
- Integrated gap models of service quality
- Measuring healthcare service quality and setting standards
- Customer identification, selection, and acquisition
- Engaging patients and building enduring relationships
- Capturing, managing, and leveraging customer data
- Managing brand and online reputation
- Social media in healthcare
- Regulatory and ethical issues in healthcare marketing practices

## **Health Informatics and Information Technologies**

Information technology (IT) is playing a vital role in enabling the transformation of the US healthcare system. The number of US hospitals with an EHR system has grown from 9% in 2008 to a striking 84% in 2014, a 9-fold increase in 6 years. The digitization of healthcare has profoundly changed how health data is generated, collected, stored, analyzed, and applied. At the same time, technology is evolving rapidly, with large-scale machine learning and mobile technologies finding innovative ways in reshaping the delivery of care. The coming trend of big data in healthcare opens exciting opportunities for better care management and clinical decision support.

These developments create significant challenges for the next generation healthcare leaders and managers. To devise strategies to successfully deploy and manage health IT at different levels of healthcare organizations, the future leaders not only need the understanding of healthcare context, but also should develop a thorough understanding of the business, investment, strategy and policy aspects related to the emerging health IT contexts.

This course is targeted at professionals, managers, and consultants in healthcare to develop their understanding of core health informatics knowledge, IT concepts and management skills. Students will learn about policies, standards and methods of information exchange, data quality, cloud computing, behavior and population management, personal data collection devices, and how these elements can come together as parts of systems.

### **Major Topics**

- Major data sources and types in healthcare
- Electronic health records and related technologies
- Clinical decision support
- Data standards, and exchange
- Population management and predictive analytics
- Telemedicine and mHealth
- Strategic planning, evaluation, and implementation of IT projects

### **High Level Course Learning Objectives**

- Have a broad understanding of the health IT ecosystem
- Be conversant with major healthcare technology information standards and interchange methods including electronic health records (EHR) management and exchange standards such as Health Level-7 (HL7), etc.
- Be able to analyze and discuss business cases related to healthcare IT, including both the technical and organizational/systemic dimensions
- Be able to navigate and discuss advances in health IT, including genetic profiling, lifestyle management, activity tracker data collection, and analytics.
- Be able to knowledgeably discuss the opportunities and problems, including legal considerations presented by HIT and strategies for dealing with them.
- Be able to think strategically how IT and health informatics be deployed to support the payment reform and regulation changes.

## **Current Topics in Healthcare Transformation**

There is no other sector of the US economy that has witnessed such major changes in the policy and regulatory environment in recent years as healthcare. The passage of the Affordable Care Act in 2010, coupled with a growing national realization that fundamental transformations in healthcare practice and delivery are needed to achieve the desired goals of patient safety, reduced costs, and improved access to healthcare services, has created new opportunities and challenges for all players in the healthcare ecosystem. Healthcare administrators, clinicians, payers, and executives alike are faced with an external landscape that requires a new form of strategic thinking, and an internal imperative to develop an expanded capacity to manage persistent and radical change.

This course will cover a range of different topics selected to enhance students' understanding of critical policy changes and how to lead transformation in their organizations. Specific modules include:

### **The External Environment**

- Accountable care organizations
- Population health management
- MACRA and its implications for different players in healthcare
- Mergers and acquisitions in the healthcare industry
- Security and privacy of health data: crafting cybersecurity policy

### **Internal Challenges**

- Building an evidence-based culture to leverage data
- Developing high-performance teams
- Leading and managing organizational change
- Precision medicine and its implications

## **Health Economics and Financing**

The healthcare industry accounts for \$3 trillion of spending, and roughly 18% of the GDP in the US. It also represents 9% of the total employment. The past several decades have witnessed the rapid growth of healthcare spending. At the same time, healthcare is an industry that is characterized by information asymmetries and market failures. How to finance healthcare and regulate its costs have always been a core issue in the national policy.

The economics and financing of healthcare clearly also affect everyone in the industry. With new healthcare reforms and constant adjustments in payment models, it is imperative for the business leaders in the healthcare industry to have a thorough understanding of its economics and financing aspects.

This course is designed to provide managers and professionals with a comprehensive overview of topics related to the financial aspects of healthcare. Students will gain a perspective of how the healthcare ecosystem “works” from an economics perspective. The knowledge will be helpful for better economic analysis and business management in healthcare.

### **Key Topics:**

- The value of health, the determinants of health
- Demand and access for healthcare
- Health insurance market, moral hazard and adverse selection
- Patient behavior, long-term care
- Hospital and physician market
- Pharmaceutical and medical device industry
- Healthcare financing mechanisms
- Pay for performance, value-based purchase
- Accounting and Financial statements and reports
- Cost-benefit analysis and Cost-effectiveness analysis
- Technology and the impact on healthcare spending

# **VI-1.00(E) UNIVERSITY OF MARYLAND WEB ACCESSIBILITY POLICY**

Approved by the President on an Interim Basis September 12, 2017

**Marcio A. Oliveira**

Assistant Vice President

Division of Information Technology

## **University of Maryland Commitment**

Creating and maintaining a welcoming and inclusive educational and working environment for people of all abilities.

Ensuring equal access to information and services for all its constituencies.

Complying with Sections 504 and 508 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990.

## Requirements

By December 2020, all university Web pages used to conduct university business or academic activities must conform to the **Web Consortium Accessibility Guidelines (WCAG) 2.0 level AA.**

By December 12, 2017 your unit is required to:

- Establish priorities and timetables for updating your Web pages
- Add the words “Web Accessibility” in the footer or any visible location of your websites and link them to a common institutional Web page: <https://www.umd.edu/web-accessibility>

Remediation is the responsibility of the university administrative, academic, and programmatic unit that owns and controls the Web page and its content.



## University Senate CHARGE

<b>Date:</b>	August 25, 2017
<b>To:</b>	Lucy Dalglish, Warren Kelley, Ja'Nya Banks Co-Chairs, Joint President/Senate Inclusion & Respect Task Force
<b>From:</b>	Wallace D. Loh <i>Wallace D. Loh</i> President Daniel Falvey <i>Daniel Falvey</i> Chair, University Senate
<b>Subject:</b>	Inclusion and Respect at the University of Maryland
<b>Senate Document #:</b>	17-18-03
<b>Deadline:</b>	March 30, 2018

President Loh and the Senate Executive Committee (SEC) request that the Joint President/Senate Inclusion & Respect Task Force consider how best to nurture a climate that is respectful and inclusive of all members of our campus community, stands against hate, and reaffirms the values that define us a University.

Specifically, we ask that you:

1. Collect input from and engage the entire campus community, including faculty, staff, students, administrators, and alumni, as well as representatives of the surrounding community, on the current campus climate and on the difficult issues at the intersections of free speech, hate speech, and freedom of association.
2. Assess the climate on diversity and inclusion on the campus and how it is experienced by members of the campus community. Review existing data on campus climate and gather information from members of the campus community from a variety of backgrounds and experiences, including underrepresented minorities and members of the international and LGBTQ communities.
3. Consult with representatives of the Office of Diversity & Inclusion (ODI), the Office of Student Conduct, the University of Maryland Police Department (UMPD), the Office of Civil Rights and Sexual Misconduct (OCRSM), Office of Rights and Responsibilities in the Department of Resident Life, the Department of Fraternity and Sorority Life, the Department of Athletics, University Marketing and Communications, the Office of Undergraduate Studies, and other relevant units at the University.



4. Review the University of Maryland Non-Discrimination Policy and Procedures and other relevant University and University System of Maryland policies.
5. Review the University's procedures for reporting and resolving reports of hate, bias, racism, and discrimination.
6. Review information on the response to past reports of hate and bias incidents at the University from OCRSM, UMPD, ODI, and any other relevant University offices.
7. Review and assess current resources, programs, and outreach efforts to (1) educate the campus community, and (2) support those affected by racism and discrimination, and their overall effectiveness.
8. Review current cultural competency initiatives and trainings throughout the University and consider the effectiveness of these efforts in creating an inclusive campus environment.
9. Review research related to race/ethnicity, discrimination, and bias in higher education.
10. Review and assess best practices at our peer institutions.
11. Review higher education professional association guidance addressing hate speech and campus climate issues.
12. Consider how to evaluate the needs of underrepresented groups and develop strategies to assess the efficacy of efforts to address those needs and create a more inclusive environment.
13. Consider how best to differentiate between free speech and hate speech in University policies and procedures.
14. Consider how appropriate communication and public awareness efforts should be used to promote a more inclusive campus climate.
15. Develop strategies for fostering a campus environment that is intolerant of hate, bias, and racism, including any necessary educational or training initiatives for students, faculty, staff, and administrators. Consider how these strategies should be implemented and how they can be evaluated for effectiveness.
16. Develop a statement on the University's core values and consider how those values are instilled in students, faculty, and staff. If appropriate, consider how to enhance understanding of our core values and develop strategies to reinforce them over time.

17. Consult with the appropriate Senate committees on any proposed revisions to University policies and procedures.
18. Consult with the University's Office of General Counsel on any proposed recommendations.
19. If appropriate, make recommendations on revisions to University policies and procedures as well as on appropriate strategies for fostering an inclusive campus community.

We ask that you submit your report and recommendations to the Senate and the President's Offices no later than March 30, 2018. If you have questions or need assistance, please contact Reka Montfort in the Senate Office, extension 5-5804.

# Joint President/Senate Inclusion & Respect Task Force

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OCTOBER 5, 2017

UNIVERSITY SENATE MEETING



# Task Force Members

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- Ja'Nya Banks, Undergrad-EDUC, SGA (co-chair)
- Lucy Dalglish, Dean, Journalism (co-chair)
- Warren Kelley, Asst. VP, Student Aff (co-chair)
- Oscar Barbarin, Faculty, BSOS
- Lillia Damalouji, Undergrad-BSOS
- Zein El-Amin, Faculty, SLLC-ARHU
- Rosanne Hoaas, Non-Exempt Staff, UMPD
- Luke Jensen, Exempt Staff-LGBT Equity Center
- Diane Krejsa, Office of General Counsel
- Roz Moore, Exempt Staff-Student Affairs
- Vincent Novara, Faculty, Libraries
- Ishaan Parikh, Undergrad-CMNS
- Melanie Pflucker, Grad-EDUC, GSG
- Nicole Pollard, Alumnus & Trustee
- Rashawn Ray, Faculty, BSOS
- Ana Sanchez-Rivera, Grad-BSOS
- Timea Webster, Non-Exempt Staff, ODI
- Roger L. Worthington, Chief Diversity Officer

# Task Force

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- Hard copies of the task force's charge are available in the back.
- Detailed information about the task force's membership, meetings, agendas, opportunities for community engagement can all be found at:  
<http://www.go.umd.edu/inclusion-respect>.
- Task force meetings will be open and meetings in which public comment will be welcome will be noted on the meeting agendas.

# Working Groups

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- Five working groups will consider related charge points, review peer research, consult and collaborate with relevant offices before making recommendations to the task force.
  - Free Speech/Hate Speech
  - Policies & Procedures
  - Prevention & Education
  - Climate
  - Hate/Bias Response

# Free Speech/Hate Speech

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- Diane Krejsa
- Ishaan Parikh
- Nicole Pollard
- Lucy Dalglish (Point-of-Contact)

# Policies & Procedures

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- Lillia Damalouji
- Luke Jensen
- Rashawn Ray
- Lucy Dalglish & Warren Kelley (Points-of-Contact)



# Prevention & Education

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- Rosanne Hoaas
- Roz Moore
- Zein El-Amine
- Ja'Nya Banks (Point-of-Contact)

# Climate

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- Oscar Barbarin
- Melanie Pflucker
- Roger Worthington (Point-of-Contact)

# Hate/Bias Response

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- Vin Novara
- Ana Sanchez-Rivera
- Timea Webster
- Warren Kelley (Point-of-Contact)


# Task Force Review Process

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- Collect feedback from the campus community (open forums, targeted sessions, Senate meeting presentations, meetings with various groups (SGA, GSG, RHA, non-exempt staff etc.))
  - Task Force held campus-wide open forums on Sept. 20<sup>th</sup> and 28<sup>th</sup>.
- Working groups will collect input, review peer institution research, any relevant research, and report to full task force.

# Task Force Review Process

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- Task force will evaluate reports from all working groups and develop preliminary recommendations.
  - Task force will get feedback on preliminary recommendations (campus community, University Senate).
  - Task force will present final recommendations to the Senate in April 2018.
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# Guidelines for Dialogue

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- Please share airtime (1-2 minutes per person).
- Focus on substantive issues rather than on other participants.
- Respectfully listen to the views and ideas of others.
- Focus on identifying the sources of common ground as well as disagreement.
- Refrain from physical, emotional, and verbal intimidation.

# Provide Feedback to the Task Force

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Submit feedback on the task force's working group areas or general feedback by going to:

**<https://go.umd.edu/inclusion-respect-feedback>**