



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

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)

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

COMMITTEE WORK

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

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

There are no risks to the University.

FINANCIAL IMPLICATIONS

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

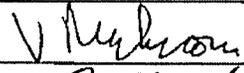
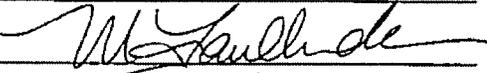
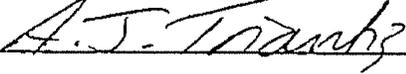
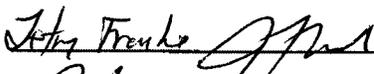
Proposal Contact Person (with email):

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.

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.

XI. Commitment to Diversity

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)
- Advertising in UMD Campus Newspapers
- Masters Only Education Fairs (Fall And Spring) Throughout the U.S.
- Participation in a Masters-focused Business School Alliance
- Participant in Graduate Business Education Events Targeted for Underrepresented Populations, Particularly U.S. Minorities and Women
- 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	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL (Add 1 - 4)	\$295,560	\$304,427	\$313,560	\$322,966	\$332,655

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
TOTAL (Add 1 - 7)	\$262,431	\$267,455	\$272,631	\$277,961	\$283,451

*Operational expenses include program advertising and scholarships.