



NOTRE DAME
OF MARYLAND
UNIVERSITY

April 25, 2018

James D. Fielder, Jr., Ph.D.
Secretary of Higher Education
Maryland Higher Education Commission
Nancy S. Grasmick Building, 10th Floor
6 North Liberty Street, Baltimore, MD 21201

Dear Secretary Fielder:

Enclosed please find our proposal to expand our existing Post-Baccalaureate Certificate (PBC) in Risk Assessment Management at Notre Dame of Maryland University School of Arts, Sciences and Business to a Master of Science in Risk Management. NDMU has successfully offered an online PBC since 2014 and has a strong record of enrollment and successful student outcomes. This proposal reflects NDMU's core competency in educating women and men at the graduate level and supports the NDMU mission of increasing access to transform lives. We currently have a number of students in our existing Post-Baccalaureate Certificate (PBC) in Risk Assessment Management who desire a more comprehensive focused degree at the master's level in order to move into more demanding career opportunities. Providing a focused Master of Science in Risk Management will effectively meet the needs of our students while also addressing increasing market demand for Risk Management professionals. Consistent with NDMU College Mission, this program will also provide increased opportunities for women to enter the field as well as offer co-educational opportunities at the graduate level to prepare students for success. NDMU is therefore seeking MHEC's approval to offer a Master of Science in Risk Management both online and in the traditional face-to-face modalities.

The M.S. in Risk Management program addresses Goal 5 of the Maryland State Plan to "Promote economic growth and vitality through the advancement of research and the development of a highly qualified workforce," as well as a documented need for degree-prepared graduates needing to fill positions within various fields such as health care, Non-profit businesses leadership, state and federal agencies, higher education, insurance, banking, and finance. Given the increasing social complexity and rapid pace of change in our society an advanced degree in Risk Management provides numerous sectors an evidence-based approach to reduce vulnerabilities.

Institution: Notre Dame of Maryland University
Program: Risk Management
Degree: M.S.
Contact Person: Suzan Harkness, Associate Vice President for Academic Affairs
410-532-5316, sharkness@ndm.edu

This proposed program increases opportunities for both women and men to enter a well-paying sector of the economy. The curriculum is rigorous and relevant in course design and delivery, and the institution has qualified faculty expertise in the field to ensure compliance with the principles of best practice in the discipline.

If you have any questions about this proposed expansion, please do not hesitate to call. Thank you in advance for considering this proposal.

Sincerely,

A handwritten signature in cursive script that reads "Sister Sharon Slear".

S. Sharon Slear, Ph.D.
Interim Provost and Vice President for Academic Affairs

**Maryland Higher Education Commission
New Program Proposal
Master of Science in Risk Management
Notre Dame of Maryland University**

A. Centrality to institutional mission statement and planning priorities

Provide a description of the program, including each area of concentration and how it relates to the institution's approved mission.

Notre Dame of Maryland University has offered an online post-baccalaureate certificate program in Risk Management since 2014. The Master of Science in Risk Management degree represents an appropriate expansion of the expertise found in the certificate program and in the Department of Business and Economics at Notre Dame of Maryland University. Notre Dame has a record of strong enrollment and successful student learning outcomes in both the Business and Economics Department overall, as well as its Risk Management Certificate. The University's undergraduate courses in business were first offered in 1975, and the Master of Arts in Management (now particularly responsive to the workplace with a reframed curriculum as Leadership and Management) has a 30-year history. The complementary Master's degree in Non-Profit Management offers a unique educational opportunity to many city and regional agencies. Outside of Business, the Masters in Analytics with a focus on data management and security includes a course in risk. The Master's programs are based in the Graduate offerings within the School of Arts, Sciences and Business. The new MS in Risk Management will incorporate a combination of classes from the existing Risk Management Certificate and the existing Master's in Leadership and Management in addition to two new risk courses. Finally, risk management is viewed as integral to health care settings, which aligns the program objectives with the interests of the University's School of Nursing and School of Pharmacy.

Explain how the proposed program supports the institution's strategic goals and provide evidence that it affirms it as an institutional body.

The mission of the University calls for the institution to prepare students to respond as leaders to the needs of the times and to address contemporary issues. The University strategic plan calls for forward-looking curriculum plans that support solutions to the demands of 21st Century careers and workforce needs. The interdisciplinary courses in the proposed 30-credit Master's program build on the 18 credits within the Risk Management certificate and will continue to stress critical thinking, qualitative and quantitative assessment of risk, uncertainty and probability, risk modeling and risk communication. The liberal arts foundation to business education provided at the University will serve this Risk Management curriculum well, in addition to mutual matters of interest in both business and the health sciences.

B. Adequacy of curriculum design and delivery to related learning outcomes consistent with Regulation .10 of COMAR.

Provide list of courses, educational objectives, intended student learning outcomes, general education requirements, specialized accreditation, and contracts with other institutions.

The Master of Science in Risk Management offers intensive and in-depth study of risk analysis and risk management. Students frame risk management activities, build and analyze risk assessment models, and employ tools for qualitative and quantitative assessment of risk. Communication of risk and crisis communication are stressed. A particular strength of this program is that applications to decision-making in an uncertain environment will be considered from a variety of disciplinary and professional perspectives. This 30-credit online program is loosely designed around a cohort model, with students

completing the sequence of courses in 12-24 months. The program is structured for those already employed in a wide variety of industries who desire to develop this special area of expertise.

The Master of Science in Risk Management trains those employed in academia, business, government, consumer protection, economics, engineering, environmental science and policy, epidemiology, food safety, government, environmental health and safety, law, public health policy and research, toxicology and related fields in identifying, assessing, minimizing, avoiding and prudently taking risk in achieving organizational strategic goals. Ethical and human factors in risk management are addressed in the curriculum as applied to the lived professional experience of students.

Students who complete the program successfully will:

- Make effective decisions under uncertainty
- Build, run, summarize, present and use a probabilistic risk assessment model
- Communicate effectively about risk
- Assess risks qualitatively
- Assist in the establishment of risk management governance

Program of Study

Required Courses for the Degree (30 Credits)

RIS 501 Risk Management (3)

RIS 502 Risk Assessment (3)

RIS 601 Uncertainty (3)

RIS 602 Quantitative Risk Assessment (3)

RIS 603 Risk Communications (3)

RIS 630 Ethics and Risk Governance (3)

RIS 6XX Enterprise Risk Management (3)

RIS 6XX Decision Making Under Uncertainty (3)

BUS5XX Managing Together (3)

BUS5XX Adaptive Leadership (3)

Course Descriptions

RIS 501 Risk Management. Prepares learners to use the risk analysis paradigm where organizations intentionally manage, assess and communicate about risk. Risk management is about making effective decisions under conditions of uncertainty. A generic risk management model is introduced and developed. Students learn to apply several risk management methodologies. *3 graduate credits*

RIS 502. Risk Assessment. Introduces learners to a generic and generalizable risk assessment model as well as to several qualitative risk assessment techniques. Students learn to apply qualitative techniques. (Prerequisite:RIS 501) *3 graduate credits*

RIS 601. Uncertainty. Prepares learners to describe and address epistemic and aleatory uncertainty. Explores the use of probability distributions to address these sources of uncertainty in a wide variety of decision contexts. Students learn to represent uncertainty using probability distributions. (Prerequisite: RIS 502) *3 graduate credits*

RIS 602. Quantitative Risk Assessment. Prepares learners to conduct deterministic and probabilistic risk assessment. Students learn to build and use probabilistic risk assessment models. Emphasis is placed on communicating uncertainty to decision makers. (Prerequisite: RIS 601)
3 graduate credits

RIS 603 Risk Communication. Prepares students to respond professionally to the special challenges of coordination among risk managers and risk assessors and focuses primarily on risk and crisis communication where there is considerable uncertainty. Students learn how to map risk communication messages. *3 graduate credits*

RIS 630. Ethics and Risk Governance. Prepares students to examine ethical issues and social responsibility related to risk problems through the lens of current events. Topics include such things as ethical principles in the face of systems collapse, protection of the most vulnerable, the public's role in decision making, and managing risk for development. *3 graduate credits*

RIS 6XX. Enterprise Risk Management. Prepares students to successfully embed risk management in the organization. This course provides a detailed introduction to the practice of Enterprise Risk Management and the process and techniques available for the successful establishment of a risk appetite, as well as risk assessment and risk treatment at the enterprise level. *3 graduate credits*

RIS 6XX. Decision Making Under Uncertainty.
Prepares students to make decisions under conditions of uncertainty. This course provides a background in decision analysis with a focus on the most current principles, methods and techniques in practical usage for making decisions under uncertainty. (Capstone) *3 graduate credits*

BUS5XX. Managing Together

Apply management theories to dynamic risk situations. Identify best practices in organizational management including planning, project management, and process administration with an emphasis on risk mitigation and organizational health. (MALM, NPM, and Analytics learners may not take this course; students transferring from MALM may substitute BUS501 for this course, but there are no other substitutions from any other program). *3 graduate credits*

BUS5XX Adaptive Leadership

Apply leadership, followership, and interpersonal relations theories to risk management. Develop situational leadership savvy across the full range of leadership practices from transactional to transformation. Refine interpersonal skills and stakeholder influence. (Prerequisite: BUS5XX Managing Together) *3 graduate credits*

C. Quantifiable and reliable evidence and documentation of market supply and demand in the region and state.

Demonstrate demand and need for the program in terms of meeting present and future needs of the region and the State.

The Risk Management Master's degree program addresses Goal 5 of the Maryland State Plan: "Promote economic growth and vitality through the advancement of research and the development of a highly qualified workforce." Given the increasing social complexity and rapid pace of change in our society, government, business, engineering, a wide variety of industries, and the health care sector are increasingly vulnerable. Risk management provides these sectors with an evidence-based approach to reduce that

vulnerability. The program's director has assisted Maryland's Department of Natural Resources and the Maryland Department of the Environment in risk assessment for EO 01.01.2011.11. The Risk Management Certificate has also served the professional development needs of the United States Army Corps of Engineers since the certificate's first course in 2014. The work of this state agency and an internationally active federal organization provide excellent examples of the growing need for these competencies. Well-trained professionals skilled in risk assessment, management and communication are needed in the workforce well beyond the usual focus on risk management found in the insurance, banking and finance industries and curricula that serve these sectors of business.

Present data and analysis projecting market demand and the availability of openings in a job market to be served by the new program.

In a 2011 article in *Risk Management* magazine, Emily Holbrook listed the top 10 institutions of higher education offering programs of study in risk management. Illinois State University had the highest number of graduates in 2010 (142). Others in the eastern United States included the University of Georgia (140), Florida State University (68), Appalachian State University (53), Georgia State University (43), the University of North Carolina--Charlotte (40) and nearby Temple University of Philadelphia (130). Also in close geographic proximity, George Mason University offers a master's degree in health systems management/risk management and patient safety as well as a post-baccalaureate certificate in actuarial science.

Federal and state agencies, food manufacturers, engineering firms, health care organizations, environmentally-oriented businesses, academia, the financial services industry, and larger enterprises of all types need risk management expertise. While the reach of this online certificate would extend beyond the Mid-Atlantic region, Philadelphia, northern Virginia and the District of Columbia represent the geographic hub of a number of federal agencies whose employees would find this certificate beneficial. In July 2016, the Office of Management and Budget (OMB) issued updated circular (A-123) requiring federal agencies to implement enterprise risk management systems to ensure that federal managers are effectively addressing risks that could affect the achievement of agency strategic objectives. Increasingly, private businesses and large corporations are equally focused on ensuring that their organizations are adequately prepared to manage risk, i.e., enterprise risk management. This expectation requires professionals who are fully trained in the management of risk, and in the development and implementation of risk management plans within their agencies and their companies. The NDMU Risk Management Certificate established a foundation for these professionals, while the graduate degree in Risk Management will expand that foundation by providing the full scope of risk management preparation to most effectively address the increasingly sophisticated challenges of today's world (<http://www.gao.gov/assets/690/681342.pdf>).

Provide evidence of student interest in the program. What are the projections of program majors full-time and part-time for each of the first five years of the program?

The part-time risk management post-baccalaureate certificate has had a steady enrollment of cohorts of at least 20 students each academic year who complete the six courses sequentially (one at a time) during a period of one academic year. Currently, more than 60 students have successfully completed the program, which has over a 90% retention and over a 95% completion rate within those retained. A new cohort enrolled and began in Fall 2017. These students and their employers have expressed interest in a full master's program in Risk Management, and the certificate will serve as an 18-credit crosswalk into the masters for those who have already completed the certificate. New students will complete the certificate sequence of courses plus the Master's-specific courses for the full 30-credit degree.

Project the number of graduates for the first five years of the program following the first year of awarding the degrees.

The MS in Risk Management is a 30-credit fully online program. Most courses will be 8 weeks in length, with the program schedule of two 8-week terms of 2 courses in one traditional semester. Schedules will allow a student to enroll in 1 course per term or 2 courses per semester, and thereby complete the program in 2 years (fall, spring, summer, fall, spring, and summer).

Provide data showing the current and projected supply of prospective undergraduates.

Based on current enrollment in the certificate program, and interest expressed by prospective students for the master's program, it is anticipated that at least 10 students will enroll in the first year of the program, with a goal of 30 new students per year by the 5th year of the program. The retention rate from the first year to the second year of the program is estimated at 75%. Enrollment in the certificate program over the past five years is presented below:

	2014-15	2015-16	2016-17	2017-18	2018-19
Completed Certificates	18	22	22	21	20*

**Anticipated*

The certificate program is expected to continue at its current enrollment levels. NDMU anticipates increased enrollment in the Master's program, shown below, to be in addition to certificate enrollment.

	2018-19	2019-20	2020-21	2021-22	2022-23
Annual New Enrollment (Master's)	10*	15*	20*	25*	30*

**Anticipated*

D. Reasonableness of program duplication

Identify similar programs in the state and/or same geographic area. Discuss similarities and differences between the proposed program and others in the same degree to be awarded.

A review of the curricula for graduate programs in risk management, including the universities identified earlier indicate that Notre Dame's proposal stands alone as a discipline free approach to risk management. All the schools surveyed offer programs that tend to focus on insurance, finance or, as is the case for, the Johns Hopkins University Carey School of Business, enterprise risk management. Each of these programs has a narrower and more specific focus than Notre Dame's proposal. In addition to the D.C. geographic locus of the Hopkins program, Notre Dame's program will be fully online. The University of Maryland Office of Professional Studies offered an online graduate certificate in food safety risk analysis for a time. That program no longer exists.

If a similar program exists in the State, describe the similarities or differences in the degree to be awarded, the area (s) of specialization, and the specific academic content of the program or course of study.

Locally, the Johns Hopkins University Carey School of Business began offering a part-time Master of Science degree in enterprise risk management at its Washington, D.C. location in fall 2014. In addition to the D.C. geographic locus of the Hopkins program, the Notre Dame degree will differ in its audience orientation, seeking to serve the experienced manager who now needs to develop credentials in risk management. Notre Dame's program will be fully online and will appeal to a different market than the JHU program does. The JHU enterprise risk focus is specifically on corporate/business risk management,

while the NDMU program will impart a broader risk analysis approach across public and private sector industries. The differences are seen most clearly in the choice of risk classes offered.

JHU Program Risk Courses	NDMU Program
BU.520.710 Big Data Machine Learning	RIS501 Risk Management
BU.610.750 Global Supply Chain Management	RIS502 Risk Assessment
BU.610.730 Supply and Services Contracting	RIS601 Uncertainty
BU.610.705 Crisis Management	RIS602 Quantitative Risk Assessment
BU.230.750 Financial Crisis and Contagion	RIS603 Risk Communication
BU.330.730 Cybersecurity	RIS630 Ethics and Risk Governance
BU.300.620 Managing Complex Projects	RIS6XX Enterprise Risk Management
BU.610.630 Insurance and Risk Management	RIS6XX Decision Making Under Uncertainty
BU.330.780 Data Science and Business Intelligence	BUS5XX Managing Plans, Processes, and Projects
BU.520.701 Special Topics in Risk Management	BUS5XX Adaptive Leadership
BU.231.720 Corporate Governance	

Provide justification for the proposed program.

Given the employment specifics provided earlier in this proposal and the lack of duplication with other programs, as well as the fact that this is a current NDMU certificate that will now be expanded to a full master’s program, the approval of the program is justified from a workforce needs perspective as well as from an increased access to higher education perspective; the fully online delivery increases opportunity for those students not in the immediate NDMU market area to enroll in and complete a workforce-demand degree to which they would otherwise not have access. The fact that no similar programs exist in the state also supports approval in that the fully online program will not draw from the market pool of an existing program.

E. Relevance to Historically Black Institutions (HBIs)

Discuss the program’s potential impact on the implementation or maintenance of high-demand programs at HBIs.

This program does not duplicate an existing program at a Maryland HBI.

Discuss the program’s potential impact on the uniqueness and institutional identities and missions of HBIs.

This program does not duplicate a similar program at a Maryland HBI; therefore approval of NDMU’s expansion of its existing Risk Management Certificate will not have a negative impact on the uniqueness and institutional identity and mission of these HBIs. In fact, this program will increase access for minority undergraduate students interested in a career in risk management.

F. If proposing a distance education program, please provide evidence of the “Principles of Good Practice.”

NDMU, a member of Maryland Online, has adopted the Quality Matters standards as the guidelines for design, development and delivery of all online courses and programs at Notre Dame. Courses are developed under the criteria outlined in the QM rubric, and go through an internal peer review process (QM qualified reviewers) prior to delivery. Faculty wishing to teach online are required to complete two QM courses that review best practice in design and delivery of online courses and programs.

G. Adequacy of faculty resources.

Provide a brief narrative demonstrating the quality of program faculty. Include a summary list of faculty with appointment type, terminal degree title and field, academic title/rank, status, and the courses each will teach.

Faculty who will teach in the program include the highly prepared Business faculty who currently teach full time at NDMU, in addition to specialized adjunct faculty who are highly experienced professionals in the field. Professor Yoe, the program director, is the author of several books on the subject, including *Principles of Risk Analysis: Decision Making Under Uncertainty* and an internationally known expert and consultant on risk analysis. He will be the principal designer of the curriculum and the lead instructor for the program.

Full-Time Faculty

Ademar Bechtold, Ph.D. Professor of Economics; Economics, International Business
Larry Beyer, MBA, Assistant Professor of Business,/Economics; Business and Economics
Debra M. Franklin, Ph.D. Professor of Communication Arts; Crisis Communication, Public Relations Management (School of Arts, Sciences and Business Dean)
Elizabeth Jones, Ph.D. Associate Professor of Business; Management and Leadership
Charles Yoe, Ph.D. Professor of Business and Economics; Risk Management and Risk Assessment

It is expected that the Communication Arts and Philosophy departments will assign additional faculty to support the program curriculum.

No new permanent faculty lines will be required for this program. Current full-time faculty and adjunct faculty will be engaged to teach sections of the specialized Risk Management courses as needed based on enrollment growth.

H. Adequacy of library resources.

The holdings of the Loyola-Notre Dame Library continue to support graduate programs in business and are sufficient to support this program. The library database system for “Risk Management” yields 1,610,163 books, journals, articles, and other artifacts – more than adequate to support this program. Subscriptions for several preferred specialized e-journals will be added to the collection.

I. Adequacy of physical facilities, infrastructure and instructional equipment.

No new physical space is needed for this fully online program. The NDMU LMS Joule (Moodle Rooms) will be the learning platform for the program.

J. Adequacy of provisions for evaluation of the program.

Discuss procedures for evaluating courses, faculty, and student learning outcomes.

The fully online MS in Risk Management program will be subject to the same requirements of all programs for course, faculty, and program evaluation. The Risk Management Certificate program assessment plan is updated annually; the Master’s program would be handled in a similar fashion. All NDMU students complete course evaluations online at the end of each of their courses, and this will continue for the online MS in Risk Management courses. Faculty are evaluated annually by their department chairperson as provided for in the NDMU faculty handbook, and this will continue for full-time faculty teaching in the MS program. Adjunct faculty teaching at NDMU are evaluated through peer observation and feedback during their first two semesters at the university using criteria for best practices in teaching and learning.

The University Assessment Plan at NDMU guides the assessment of student learning outcomes at all levels of the institution. Every course syllabus must contain learning outcomes for the program and the course, and assess those outcomes every year. Departments prepare and submit an annual student learning outcomes assessment report, which is reviewed by the University Assessment Committee. Feedback for these reports is provided to the chairs and the faculty at department and individual meetings. All requests for resource allocation and budget change must be supported by assessment data, including coursed-based outcomes results.

K. Consistency with the state’s minority student achievement goals.

Discuss how the proposed program addresses minority student access and success, and the institution’s cultural diversity goals and initiatives.

The recruitment and retention of minority students is a high priority for Notre Dame, which regards outreach to minority populations as an integral part of our mission. Notre Dame continues to serve approximately 48 percent of students of color in its overall student population. Additionally, Notre Dame’s academic support resources, including the Academic and Career Enrichment Center, are designed to help bolster the retention of at-risk students, including minority students. NDMU anticipates that the fully online delivery options for this program will reach a wide, diverse group of students and, therefore, increase access to this program for students who are historically underrepresented in business and data analytics programs.

L. Relationship to low productivity programs identified by the Commission.

If the proposed program is directly related to an identified low productivity program, discuss how the fiscal resources may be redistributed to this program.

This program has no relationship with low productivity programs.

M. Finance

There are no full time students in this program. Item 2f shows new students in the top line and returning students, assuming 75% retention, in the second line.

FINANCE DATA

TABLE 1: RESOURCES					
	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds	--	--	--	--	
2. Tuition/Fee Revenue (c+g below)	--	--	--	--	--
a. Number of F/T Students	--	--	--	--	--
b. Annual Tuition/Fee Rate	--	--	--	--	--
c. Total F/T Revenue (a x b)	--	--	--	--	--
d. Number of P/T Students	10	23	32	40	53
e. Credit Hr. Rate	\$590	\$608*	\$626*	\$645*	\$664*
f. Annual Credit Hrs.	18 CH x 10	18 CH x 23	18 CH x 32	18 CH x 40	18 CH x 53
g. Total P/T Revenue (d x e x f)	\$106,200	\$251,712	\$360,576	\$464,400	\$633,456
3. Grants, Contracts, & Other External Sources	--	--	--	--	--
4. Other Sources	--	--	--	--	--
TOTAL (Add 1 – 4)	\$106,200	\$251,712	\$360,576	\$464,400	\$663,456

Note: * Projection based on a 3% tuition increase per year.

1. No reallocated funds. Regular full-time faculty teach in program as part of their regular assigned load.
2. No full-time students in the program. Part-time tuition calculated as cost per credit hour x number of annual credits x number of students enrolled.
Assumes degree completers in years, 3, 4, 5.
Assumes 75% retention rate.
3. No funding from external sources.
4. No funding from other sources.

Expenditures are estimated as increases to current costs. Ten courses per year will be taught once the full program cycle is initiated--two new courses to be developed for students in the first year, and two in the second year. The cost of offering these courses will be the costs of adjuncts teaching in the master's program plus the costs of adjuncts to replace full-time faculty members who will be reassigned to teach in the master's program. Adjuncts teaching in this master's program will receive \$5,000 per course.

TABLE 2: EXPENDITURES					
	Year 1	Year 2	Year 3	Year 4	Year 5
1. Faculty (b + c below)	\$77,000	\$77,000	\$77,000	\$77,000	\$77,000
a. # FTE					.
b. Total Salary	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
c. Total Benefits	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000
2. Admin. Staff (b+c below)	--	--	--	--	--
a. # FTE	--	--	--	--	--
b. Total Salary		--	--	--	--
c. Total Benefits	--	--	--	--	--
3. Support Staff (b+c below)	--	--	--	--	--
a. # FTE	--	--	--	--	--
b. Total Salary	--	--	--	--	--
c. Total Benefits	--	--	--	--	--
4. Equipment	--	--	--	--	--
5. Library	\$4,000	\$4,300	\$4,600	\$5,000	\$5,500
6. New or Renovated Space	--	--	--	--	--
7. Other Expenses	\$5,300	\$5,300	--	--	--
8. TOTAL (Add 1 – 7)	\$86,300	\$86,600	\$81,600	\$82,000	\$82,500

1. Includes \$5,000 adjunct pay per course for ten courses annually, due to the technical and specialized nature of this program.
Includes reallocation of the time of the lead faculty member as director and a portion of benefits.

5. E-Subscriptions to two major journals in the field with the ability to access some articles from back editions.
7. Includes course development funds for 4 new courses @ \$2,650 each.