



**The Johns Hopkins University  
Krieger School of Arts and Sciences**

**Proposal for Substantial Modifications to an Existing Program**

**New Area of Concentration in International Research Administration Management within  
the Existing Master of Science in Research Administration**

**And**

**Post-Baccalaureate Certificate in International Research Administration Management  
from the Existing Master of Science in Research Administration**

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**A. Centrality to institutional mission statement and planning priorities**

**1. Program description and alignment with mission**

The Johns Hopkins University Krieger School of Arts and Sciences Advanced Academic Programs is pleased to submit a proposal for a new AOC and PBC in International Research Administration Management in the existing and previously endorsed Master of Science in Research Administration (HEGIS code 2102-02, CIP code 52.0210).

International Research Administration Management involves the administration of research being conducted that involves two or more countries, such as the U.S. and Australia or England and Malaysia. The proposed programs of study build on the MS in Research Administration program.

The MS in Research Administration is designed to accommodate both career practitioners and those who seek a career in research administration. As part of the core curriculum, students must either write a thesis or engage in an approved capstone project. In all, the total number of courses taken must be 12 courses or higher, regardless of whether it is a three-credit or a four-credit course. Courses are grouped in areas of interest to benefit students who work or want to work in various areas of research administration, or who may have varying levels of experience or special needs.

The curriculum is rigorous and provides hands on experience in research administration. After completing an international research fellowship, the Director of the program determined through extensive networking and international collaborations, that there is a need for the offering of International Research Administration Management as both an area of concentration and a PBC. Dr. Woods is also part of a global research administration committee that has worked with designing or enhancing research administration infrastructure in Europe, Africa, Australia, and Central America.

The mission of The Johns Hopkins University is to educate its students and cultivate their capacity for life-long learning, to foster independent and original research, and to bring the benefits of discovery to the world. In addition, the mission of the Krieger School of arts and Sciences, Advanced Academic Programs is to educate students by offering quality programs that will enhance knowledge of critical professions such as research administration. The proposed new AOC and PBC in International Research Administration Management aligns with both of these missions as discussed below.

## **2. Alignment with institutional strategic goals**

As the nation's first research university, Johns Hopkins University remains a preeminent research presence in Maryland, the Mid-Atlantic region, and the world. Over half of the University's funding comes through research, and our motto of "knowledge for the world" suggests the ongoing importance of research to the institutional mission. Currently Johns Hopkins leads the nation with over \$2.4B annually in research expenditures. Two of the 10 goals articulated in President Ronald J. Daniels' "Ten by Twenty" document (a set of priorities that will guide the university through the remainder of the decade) emphasize the importance of research to Johns Hopkins's future. Moreover, in support of its research mission, the University's research support infrastructure remains among the best in the United States and the world. Johns Hopkins has for many years led the way in establishing the internal staff and resources to manage its research activities.

Quite naturally, we have provided leadership to the community of practitioners in research administration at colleges and universities and within agencies and foundations. Our highly respected community of research administrators includes a past president of, and national leaders within, NCURA (the National Association for College and University Research Administrators). Our current Director is the 2009 recipient of the NCURA's highest honor, the Outstanding Achievement in Research Administration Award. With such a longstanding record of excellence in research and with many years of experience in research administration, Johns Hopkins is uniquely positioned to develop and deliver a high-quality, cross-disciplinary master's program in Research Administration that will benefit college and university practitioners as well as those in government agencies and independent foundations. Accordingly, an added AOC and PBC in International Research Administration Management is vital to the growth of research at Johns Hopkins as well as our international partners.

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

### **1. Program outline and requirements**

A full course listing with course titles and descriptions is provided in Appendix A. The proposed AOC and PBC in International Research Administration Management is designed to accommodate both career practitioners and those who seek a career in research administration. The proposed AOC in International Research Administration Management requires that students complete not only the concentration but also a core curriculum of four courses and one additional specialized curriculum track. The proposed new AOC requires that students take four courses on the list of courses for the concentration. Within the new AOC, one course is a required course: AS.475.618 -- International Research Infrastructure and Management for Higher Education. The student may then choose three elective courses to count toward their degree in Research Administration. If the student also wants a PBC in this area then they must take the required course and four elective courses.

New Concentration. Students must take the one required course and choose three electives which will count as 4 courses toward fulfilling the 12 courses need to obtain the MS in Research Administration.

For the PBC in International Research Administration Management, students must take the one required course and choose four elective courses.

Below is a listing of the courses that will be offered under the AOC and PBC:

1. **AS.475.615** -- Research Contracts and Industrial Agreements: Domestic and International (preexisting course)
2. **AS.475.616**-- Domestic and International Special Issues in Research, Legal and Regulatory Affairs (preexisting course)
3. **AS.475.617** -- The Role and Importance of Culture and Communication in International Research Collaborations
4. **AS.475.618** -- International Research Infrastructure and Management for Higher Education (**Required**)
5. **AS.475.619** -- International Funding and Grantsmanship: Proposal Development, Submission and Management
6. **AS.475.20** -- Building, Executing and Managing International Research and Collaboration Agreements
7. **AS.475.21** -- International Research Regulatory, Ethical and Compliance Issues in Research Management
8. **AS.475.22** -- Building International Innovation, Intellectual Property, and Technology Transfer Centers

## **2. Educational objectives and student learning outcomes**

Students who pursue the Master of Science in Research Administration and choose the AOC or PBC in International Research Administration Management will be able to demonstrate the following learning outcomes:

- Discuss how the field of international Research Administration Management has evolved over time in various countries and its relevance to U.S. governmental initiatives, past and present as well as international initiatives in other countries.
- Portray likely ways in which international research administration activities are organized within universities throughout the world.
- Portray detailed international organizational structures for research administration units within the major practitioner sectors and provide rationales for different ways of organizing.
- Describe the characteristics and activities needed for international and global research administration leadership roles.
- Discuss and analyze a myriad of international cultural and social mores that can foster or inhibit effective communication and collaborative work, even for those sharing a common language.

- Discuss and analyze strategies and best practices to enhance effective communication across international institutions of higher education and international funding sources.
- Discuss how to anticipate, recognize and address international cultural research issues such as language, local meanings, socio-political structures, cultural identity, time zones, working weeks, institutional imperatives, faculty-administration dynamics, laws and customs, and the role of a research administrator in differing countries.
- Discuss the international research information management landscape, including initiatives such as information systems, unique identifiers, international standards, metrics, league tables, and scholarly communication.
- Discuss the processes to engage in international policy, health, and public discourse in higher education management.
- Discuss and analyze successful operations and the associated perils and pitfalls of trans-national research offices.
- Discuss and analyze collaborative proposals where at least one partner is not in the jurisdiction of the funder, and also joint funding initiatives involving funders from more than one jurisdiction.
- Discuss the international elements of the grant lifecycle from identification, through proposal development, submission, negotiation, management, and close-out.
- Discuss and analyze differing regulatory environments various countries and how these differences can be managed within a joint collaborative project or initiative.
- Discuss differing international standards of ethical and compliance requirements and attitude.
- Discuss ethical standards for research from a global perspective, including international initiatives such as the World Congress on Research Integrity and the Asia Pacific Research Integrity Network.
- Discuss best practices in international regulatory and compliance issues.
- Discuss best practices in building international centers of innovation and global technology transfer centers.

**3. General education requirements**

Not applicable.

**4. Specialized accreditation/certification requirements**

Not applicable.

**5. Contract with another institution or non-collegiate organization**

Not applicable.

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

### **1. Demand and Need for the Program**

Research Administration is an evolving field, with workers in universities, federal agencies, non-profits, some for-profits, and, in general, wherever research is conducted. More and more research is taking place outside of the United States. In addition, more and more research involves international collaborations. As an example, the National Institutes of Health and the National Science Foundation have both funded proposals with international sub-recipients. These initiatives are viewed by many as a means to drive economic growth and create jobs, thus benefitting the economy of the U.S. while enhancing technology development and commercialization.

In addition, the European research funding program called Horizon 2020 provides funding to American scientists as sub-recipients and to researchers in Europe. Horizon 2020, which has been operating since 2014, is the biggest EU Research and Innovation Program. It has over €80 billion of funding available to scientists, including American scientists. The Horizon 2020 program prides itself on coupling research and innovation, while emphasizing excellent science, industrial leadership and tackling societal challenges. The EU Framework Program for Research aims at breaking down barriers to create a genuine single market for knowledge, research and innovation. There is a need to educate the many research administrators who are working with this program. These research administrators require training about how to manage international research projects, from financial courses and contracting courses, to international research ethics courses.

There is a large cadre of research administrators worldwide involved in administering research across national borders. As an example, in Australia, at their flagship institution, the University of Melbourne, the University has a central research administrator who is the Manager of International Grants in the Division of Research, Innovation and Commercialization. This person supervises all of the international research administrators housed in each of the colleges within the university. This is in addition to the directors of research administration located in each college and the college based research administrators serving under the Director. There are currently no programs (except for small workshop courses) that offer an academic concentration and education in International Research Administrations Management. Johns Hopkins University would be the first institution in the world to offer a research Concentration and a Certificate program in this area. There are many potential pools of students. . The three international organizations enumerated below have been formed in the last several years to address the professional development of international research administrators. None of them offers a Master's Degree in Research Administration, much less a Concentration or a Certificate in International Research Administration Management. Many potential students both within the U.S. and outside of the U.S. need the knowledge of how to develop, implement, and administer international research.

In addition to the many American Universities and American Professional Research Administration Organizations, such as The National Council of Research Administrators (NCURA) and the Society of Research Administrators (SRA), that administer research

internationally, there are currently four newly formed large professional international societies in research administration through and from which we can recruit students. These include:

- a. **The Australasian Research Management Society (ARMS).** ARMS is the professional society for research managers and administrators working throughout Australasia and Singapore. ARMS is dedicated to the professional development of research managers and administrators, the promotion of the profession of management, and the enhancement of the research enterprise. Currently the ARMS network has grown to involve more than 3,000 people from universities, research agencies and institutes, medical research institutes, R&D corporations, research centers, government departments, funding bodies, industrial R&D teams, service providers, and commercialization.
  
- b. **International Network of Research Management Societies (INORMS).** INORMS brings together research management societies and associations from across the globe. It has over **6,000** members. Its purpose is to enable interactions, sharing of good practice, and joint activities between the member societies, to the benefit of their individual memberships. The objectives of INORMS are to internationalize the body of knowledge on research management, exchange best practice, and develop international approaches to supporting the research enterprise.
  
- c. **European Association of Research Managers and Administrators (EARMA).** EARMA represents the community of Research Managers and Administrators within Europe. Their members work at the forefront of building the European Research Area. EARMA represents the community of Research Managers and Administrators (RM&As) in Europe. Members work in industry, academia, and the public and private sectors. Members work with the EU Commission, national and international funding agencies. EARMA provides a networking forum, a learning platform, and a place to share experiences and best practice among RM&As throughout EARMA and in the wider RM&A community.
  
- d. **Southern African Research and Innovation Management Association (SARIMA).** SARIMA is a membership organization of Research and Innovation Managers that operates at an institutional, national and international level and whose membership are involved in research administration and commercialization of research. The purpose of the association is to promote research and innovation management for the benefit of southern Africa. SARIMA is engaged on an annual basis with a large number of research and innovation management professionalization activities, including capacity development and other interventions. SARIMA manages a cohort of Southern African Development community (SADC) focal points to promote research and innovation management in collaboration with the South African Department of Science and Technology. SARIMA identifies itself as a stakeholder organization that provides a platform for the promotion and facilitation of best practice in research and innovation

management in Southern Africa. Their primary purpose is to strengthen the research and innovation system to ensure the social and economic development of the Southern African region. SARIMA is a new association so information about the number of members is not available at this time.

Within the State of Maryland and in some parts of Virginia, North Carolina, New York, Delaware, Pennsylvania, and New Jersey, high concentrations of universities and research-driven industries such as biotechnology, pharmaceuticals and information technology, have created demand for skilled knowledge workers who can create and manage large-scale research projects. They are also working on international projects and would benefit from a PBC program or an AOC in International Research Administration Management.

According to government sources, Maryland has consistently ranked among the top ten states in research and development intensity, which is the ratio of R&D expenditures to gross domestic product (GDP) by state. For example, according to the Montgomery County, Maryland, Chamber of Commerce,<sup>1</sup> Maryland ranks first in federal research spending per capita, with active state agencies such as TEDCO (Maryland Technology Development Corporation) promoting research and technology transfer. The state boasts the Maryland Innovation Initiative (Senate Bill 239/House Bill 442), which is designed to foster collaborative research and technology commercialization within the State's University communities. The emphasis in international research administration management can only serve to broaden these initiatives and strengthen the role of the research administrator on a global scale.

## **2. Alignment with the 2013 Maryland State Plan for Postsecondary Education**

Maryland's activity in research, combined with the regional interests, demonstrate a commitment to the kinds of environments that will create jobs for research administrators. The proposed degree in Research Administration with a Concentration and a Certificate in International Research Administration Management aligns with this reality as well as with the workforce development goals outlined in the Maryland State Plan for Higher Education.<sup>2</sup> A search of the MHEC website does not show any institution as proposing or offering a program Concentration or a Certificate in International Research Administration Management. Similarly, there are not low productivity programs with this designation.

The proposed AOC and PBC in International Research Administration is well aligned with *Maryland Ready*, the 2013–2017 Maryland State Plan for Postsecondary Education. The innovative programs will enhance the MS in Research Administration and is intended to meet the growing need for skilled professionals in research administration and international research administration throughout the state, across the country, and around the globe. This is consistent with the Goal 1 of the State Plan, "Quality and

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<sup>1</sup> See <http://www.montgomerycountychamber.com/sites/default/files/pdf/InnovateInitiativeInfo.pdf>

<sup>2</sup> [http://mhec.maryland.gov/highered/2004Plan/JUNE\\_2009\\_FinalEdited.pdf](http://mhec.maryland.gov/highered/2004Plan/JUNE_2009_FinalEdited.pdf).

Effectiveness,” which asserts that Maryland will enhance its array of postsecondary education programs to more effectively fulfill the evolving educational needs of its students, the state, and the nation. Similarly, the proposed program is consistent with Goal 4, “Innovation,” which articulates Maryland’s aspiration to be “a national leader in the exploration, development, and implementation of creative and diverse education and training opportunities that will align with state goals, increase student engagement, and improve learning outcomes...” Goal 5, “Economic Growth and Vitality,” is centered on supporting a knowledge-based economy through increased education and training; this, too, is aligned with the goals of the proposed AOC and the PBC in International Research Administration.

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

##### **1. Market demand**

The market for those seeking degrees in research administration appears predominantly in several segments, most noticeably at colleges and universities and within government agencies and non-profits engaged in research or research funding. While there may also be a role for research administrators among private-sector firms with R&D investment (such as IBM and pharmaceutical companies), the roles and educational needs of those managing such projects remains less clear.<sup>3</sup> The university and government market segments are fairly well maintained and understood, exhibiting a consistently identifiable workforce even though job classifications within the workforce may be less clear (in part due to a lag in matching existing jobs to BLS data categories). All the same (while there is no direct correlation between Bureau of Labor Statistics job categories and the research administrator role) it is possible to determine from existing job categories, such as “Natural Sciences Manager,” “Compliance Officer,” “Research Contracting Specialist,” “Research Project Manager,” and “International Research Manager” the types of responsibilities entailed. As a whole, jobs within the market segments might best be categorized as Scientific Research and Development Services. The U.S. Labor Department estimates that the Scientific Research and Development Services industry (NAICS code 541700) will grow by 25% between 2008 and 2018.<sup>4</sup> Currently several major universities, including Johns Hopkins University have vacant positions for research administrators. This new Concentration and Certificate will enhance of the pool of research administrators who are prepared to tackle the international research administrator market.

Despite the difficulties in identifying specific jobs within the overall research administration market segments, indicators of market growth can also be gleaned in other ways. For example, NCURA reports its membership grew from 45 individuals in 1960 to

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<sup>3</sup> As an example, IBM’s research activities may be conducted at major corporate research facilities, with parts of the work often outsourced to colleges and universities. Those managing the projects and outsourcing many be regular company managers, lead scientists, or contract specialists.

<sup>4</sup> As reported in Environmental Scan: Graduate Degree in Research Administration, report of the University Professional and Continuing Education Association Center for Research and Consulting. November 2012.



about 7,300 representing 400 companies, agencies or institutions in 2008.<sup>5</sup> Studies undertaken in 2005 and 2010<sup>6</sup> indicate not only a growth in the numbers of people working in research administration jobs, but also a rapid increase in the levels of benefits and compensation paid.

## 2. Educational and training needs in the region

The master's degree in Research Administration prepares national and international leaders and engages specifically those who work higher education, nonprofit organizations or in government in the Washington, D.C. region and nationwide. Prospective students for this program are drawn from federal agencies, such as Health and Human Services (HHS) with whom Johns Hopkins and AAP already have a strategic partnership, as well as from college and university research offices throughout the country. With an added emphasis on International Research Administration Management, supported by the National Council of University Research Administrators with their recent addition of International Region IX to the existing eight regions, the Research Administration Program hopes to tap into the international market of research administrators as well as the domestic market.

When the MS in Research Administration started three years ago, several sources<sup>7</sup> indicate that the typical prospective student for a degree in Research Administration was predominately female, Caucasian, with a Bachelor's degree from a variety of disciplines, who may hold a Master's degree from a variety of disciplines, age 40-55, with compensation levels between \$40,000-\$75,000. These characteristics were derived primarily from what is known about association participants (NCURA and RACC) as well as association-funded studies in the field. Yet, three later we know that this demographic has changed. This was seen by practitioners in the field and operationalized by NCURA, when NCURA added an international region to meet the needs of internationally based research administrators. In addition, NCURA in 2015 formed an International Global Committee, of which the JHU Director is a committee member, to plan and develop professional training seminars and workshops in foreign countries. Most recently this committee traveled to Cuba and met with Cuban University officials to discuss how Cuba as a nation could create a research infrastructure.

It is expected that through the Concentration and Certificate in International Research Administration Management that those administrators with titles such as "international science project managers," "research contract specialists domestic and international," or

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<sup>5</sup> As reported in Environmental Scan: Graduate Degree in Research Administration, report of the University Professional and Continuing Education Association Center for Research and Consulting, November 2012.

<sup>6</sup> See Jennifer Shambrook and Thomas Roberts, "2010 Profile of A Research Administrator," *Research Management Review*: vol. 18, Issue 1, Spring/summer 2011. This article recounts the RAS and RASPers studies which attempted to identify and establish a demographic among research administrators.

<sup>7</sup> See Jennifer Shambrook and Thomas Roberts, "2010 Profile of a Research Administrator." Abstract. *Research Management Review*: vol. 18, Issue 1, Spring/Summer 2011. See also Environmental Scan: Graduate Degree in Research Administration, report of the University Professional and Continuing Education Association Center for Research and Consulting, November 2012.

“international research specialists,” both within the U.S. and in foreign countries the typical student profile would adjust to portray a more diverse and global workforce.

### **3. Prospective graduates**

When our program sought approval almost four years ago, we focused primarily on AAP estimates that the regional and national markets for this program will sustain a cohort intake of 20-50 U.S.-based students per year for a period of 10 years, and possibly beyond. However, the program is sustaining a cohort of over 100 U.S.-based students. Due to differing requirements for international research, the appeal of the program for international students with the addition of an AOC and a PBC in International Research Administration Management is estimated to range initially between 10-40 students. However, with this proposed broadening of the curriculum to include country-specific laws and regulations, AAP has an opportunity to build into the program unique components that will make our degree more appealing and competitive. Similarly, by designing the majority of courses as tracks, such as this new proposed AOC, which can be subscribed to independent of the degree, AAP anticipates being able to attract professionals looking for specialized knowledge though not necessarily a degree.

*Market Geography.* Utilizing US Department of Labor statistics data for specific job categories such as “compliance officer” and “educational administrator” within Scientific Research and Development Services, it is possible to derive locational data that can inform AAP’s initial marketing of the Research Administration program. The UPCEA report, for example, provides employment profiles for “compliance officers” as being highest in five states: California, Texas, New York, Florida, and New Jersey.<sup>8</sup> By monitoring reports such as the annual NSF’s *Science and Engineering Indicators* report, which tracks research expenditures by state as well as federal research awards, it will be possible to target marketing efforts to areas of recognized research activity. Similarly, maintaining a close relationship with associations such as NCURA, SRA, ARMS, ERMA, and INORMS will ensure that AAP understands the university research administrator workforce. It is envisioned that we will attempt to partner with several of these associations in order to promote this new Concentration and Certificate.

## **E. Reasonableness of program duplication**

### **1. Similar programs**

We are not aware of any other institution in Maryland offering or proposing a master’s level program in Research Administration with a concentration in International Research Administration Management or a PBC in International Research Administration Management.

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<sup>8</sup> See *Environmental Scan: Graduate Degree in Research Administration*, report of the University Professional and Continuing Education Association Center for Research and Consulting, November 2012.

## **2. Program justification**

The Mid-Atlantic region, and especially the State of Maryland, is one of the most vibrant parts of the country for research-oriented activities. Home to agencies such as the NIH, NSF, HHS and others, this region also houses one of the country's highest concentrations of higher education institutions, and especially research intensive institutions. A report commissioned by AAP from the University Professional Continuing Education Association<sup>9</sup> reveals that the number of qualified research administrators is expected to increase as a result of mandatory monitoring and reporting, the growth of research in science, medicine, and healthcare, governmental initiatives to eliminate wasteful spending, and an increased focus on transparency through the use of technology and data collection and storage. Professional associations such as NCURA (National Council of University Research Administrators), NGMA (National Grants Management Association), and RACC (Research Administrators Certification Council) have endorsed post baccalaureate credentials as a means of career preparation and skills enhancement for research administrators. Because positions in research administration in the mid-Atlantic region tend to pay relatively well (\$70,000-\$120,000)<sup>10</sup>, a market exists for new entrants to the field. Also, due to increased scrutiny of research projects and employer preferences for highly ethical and skilled research administrators, with up-to-the-minute knowledge of compliance and regulatory issues, a market also exists for current workers to upgrade knowledge and skills.

In addition, as previously discussed, to support the needs of international (foreign) research administrators in 2015, NCURA implemented a new regional association called the International Region IX. This region is thriving and has numerous members from foreign countries. The International Region IX research administrators are requesting more professional programs and assistance with creating a research administration infrastructure within their universities. The new proposed Concentration and the Certificate in International Research Administration Management will serve to educate research administrators from foreign countries as well as add an opportunity for domestic research administrators to receive education in a booming area in which education is needed.

### **F. Relevance to Historically Black Institutions (HBIs)**

#### **1. Potential impact on implementation or maintenance of high-demand programs at HBIs**

This program will not compete with any programs offered at Maryland's HBIs.

#### **2. Potential impact on the uniqueness and institutional identities and missions of HBIs**

Not applicable.

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<sup>9</sup> Environmental Scan: Graduate Degree in Research Administration, report of the University Professional and Continuing Education Association Center for Research and Consulting, November 2012.

<sup>10</sup> "Occupation Profile," CareerOneStop, <http://www.careerinfonet.org>

## **G. Evidence of the Principles of Good Practice**

See Appendix B for the evidence that this program complies with the Principles of Good Practice noted above.

## **H. Adequacy of faculty resources**

See Appendix C for a representative list of faculty teaching in the master's program in Research Administration. In addition, three faculty, all with Ph.D.s, have agreed to design the courses and teach them when the Concentration and the Certificate are approved. Two of the proposed faculty come from Australian Universities and one comes from a British University. An associate director will also be hired to assist in the hiring of faculty, development, and implementation of the curriculum. Additionally, qualified practitioners from the National Council of Research Administrators (NCURA) and INORMS, EARMA, and ARMS, with appropriate degrees and teaching experience will be solicited for adjunct faculty positions in the Research Administration program as well as qualified adjunct faculty from the Washington, D.C. region.

## **I. Adequacy of library resources**

Students will have full and complete access to the Milton S. Eisenhower Library on the Homewood campus, which is ranked as one of the nation's foremost facilities for research and scholarship. Its collection of more than three million bound volumes, several million microfilms, and more than 13,000 journal subscriptions has been assembled to support the academic efforts of the University. The interlibrary loan department makes the research collection of the nation available to faculty and students. The library also provides easy access to a wide selection of electronic information resources, including the library's online catalog, and numerous electronic abstracting and indexing tools. Many of the databases are accessible remotely. Librarians help students electronically and the library maintains an extensive web site to take visitors through all of its services and materials. To this are added more than 10,000 audiovisual titles available for on-site consultation.

## **J. Adequacy of physical facilities, infrastructure and instructional equipment**

All courses in the proposed program will be offered online. The program will have no discernible impact on the use of existing facilities and equipment beyond the standard requirements already in place; primarily, faculty office space in an existing university facility location.

## **K. Adequacy of financial resources with documentation**

See Appendix D for detailed financial information.

## **L. Adequacy of provisions for evaluation of program**

***Program Level Evaluation.*** The program will collect data on applicants and admits, as well as on successful job placement and/or career advancement. These data will be examined annually as indicators of student interest, program growth, and also in concert with AAP's

program evaluation policies. To the extent possible, the program administrator will benchmark against data derived from NCURA and other organizations relative to these types of programs. Additionally, the program will be part of AAP's competitive analysis conducted each year by the Assistant Dean for Marketing.

While there is currently no specialized accrediting body for Master's Degrees in Research Administration, the topic has arisen and been endorsed by NCURA, SRA, and other organizations. Should such an accrediting body be constituted, AAP would consider seeking the accreditation. AAP does plan to link the program to RACC, NGMA, and to ensure that the curriculum prepares students to sit for the RACC and NGMA examinations in pursuit of non-credit credentials.

***Student Success Factors and Evaluation.*** Student success factors will include the following:

- Program completion with a 3.0 or higher GPA
- Successful completion of a thesis or research-informed capstone project
- Job placement (for students new to the field)
- Career advancement for students established in the field, as self-reported on exit and alumni surveys.

***Evaluation Timeframes.*** The Concentration and the Certificate in International Research Administration will be assessed each semester and data retained in the following student-related areas: prospect interest; completed applications; admissions and rejections, registrations; student retention, and student graduation. Student survey feedback will be solicited, retained, and used for program improvement in areas relative to instructor effectiveness, learning outcomes, and career preparation or enhancement.

#### **M. Consistency with the State's minority student achievement goals**

This program, with a proposed new AOC in International Research Administration will provide an opportunity for high-achieving minority students to enroll in a program of preparation to work within an industry of importance to the State. Several students who graduated from HCBUs in Maryland are currently students in the program. An appropriate student for the proposed program would apply after attending and completing a baccalaureate degree at any undergraduate institution including any of Maryland's HBIs. Therefore, this program would not directly affect the implementation, maintenance, uniqueness, identity or mission of these institutions. The HSI program would, however, serve as an extension of the opportunities provided at HBIs. Likewise, it would provide a credentialing opportunity for qualified minority students and a pathway to high-paying jobs.

In addition, the program will recruit students from around the globe. This past month the Director of the JHU program in Research Administration discussed with the President of SARIMA the curriculum at JHU in Research Administration and the potential of partnering with South African Universities. The Director has also discussed the program with Nigerian research administrators.

**N. Relationship to low productivity programs identified by the Commission:**

Not applicable.

## Appendix A

### Course Descriptions

#### **Courses for the Concentration in International Research Administration and the Certificate in International Research Administration Management**

Students selecting the Concentration in International Research Administration Management as part of their Master of Science Program in Research Administration must take four courses from the Concentration to have the Concentration count towards the fulfillment of their degree. . Within the Concentration one course is a required course: **AS.475.618 -- International Research Infrastructure and Management for Higher Education**. The student may then choose three elective courses from the Concentration to count toward their degree in Research Administration.

Students seeking a Certificate in International Research Administration must take the required course **AS.475.618 -- International Research Infrastructure and Management for Higher Education** plus four elective courses. For a total of five courses or 15 units.

**Below are the one required course and elective courses for this Concentration and Certificate.**

**AS.475.615 - - Research Contracts and Industrial Agreements: Domestic and International.** (This is an existing course that students may take to fulfill the requirements for Concentration or the Certificate in International Research Administration Management.)

This course examines how to prepare and execute research contracts and industrial agreements. It examines issues affecting both domestic and international contracting, including issues such as U.S. regulations that affect the contracting process, good terms and conditions in research contracts, maintain your nonprofit status, safe harbor laws, unrelated business income, and profit v nonprofit legal issues. The course also examines issues related to the human dynamics and cultural aspects of international and industrial contacting.

**AS.475.616- - Domestic and International Special Issues in Research, Legal and Regulatory Affairs** (This is an existing course that students may take to fulfill the requirements for the Concentration or the Certificate in International Research Administration Management.)

This course discusses special issues both domestic and international that affect research administration. Special issues such as seeking, obtaining, and monitoring an export control license, issues affecting research with pharmaceutical companies, issues affecting small business contracting, and requirements for international conflict of interest, research integrity, and use of research results will be discussed.

### **AS.475.617 -- The Role and Importance of Culture and Communication in International Research Collaborations**

This course discussed and analyzes a myriad of cultural and social mores that can foster or inhibit effective communication and collaborative work, even for those sharing a common language. The course will provide strategies and best practices to enhance effective communication across institutions and to anticipate, recognize and address misunderstandings before they escalate. Issues include: language, local meanings, socio-political structures, cultural identity, time zones, working weeks, institutional imperatives, faculty-administration dynamics, and the role of a research administrator in differing countries.

### **AS.475.618 -- International Research Infrastructure and Management for Higher Education (Required)**

This course discusses, analyses, compares and contrasts the higher education and research landscapes and infrastructures of a number of countries around the world. The course focuses on the ever changing research information management landscape, including initiatives such as information systems, unique identifiers, international standards, metrics, league tables, and scholarly communication. This course also looks at processes to engage in policy, health, and public discourse in higher education management. It also examines the successful operation and the associated perils and pitfalls of trans-national research offices.

### **AS.475.619 -- International Funding and Grantsmanship: Proposal Development, Submission and Management**

This course looks at differing international funding mechanisms and how to navigate them. It focusses on collaborative proposals where at least one partner is not in the jurisdiction of the funder, and also joint funding initiatives involving funders from more than one jurisdiction. All aspects of the grant lifecycle are covered from identification, through proposal development, submission, negotiation, management, and close-out.

### **AS.475.20 -- Building, Executing and Managing International Research and Collaboration Agreements**

This course focusses on the crucial stage of contract development and negotiation in the international context. It includes areas such as applicable law, sub-awarding, multi-country costing, employment issues, pass-through agreements, jurisdictional differences, compliance and more generally broad ethical issues, and governance.

### **AS.475.21 -- International Research Regulatory, Ethical and Compliance Issues in Research Management**

This course examines the differing regulatory environments in a number of countries and how these differences can be managed within a joint collaborative project or initiative. Similarly differing standards of ethical and compliance requirements and attitudes are examined. Ethical standards for research are discussed and analyzed from a global perspective. International



initiatives such as the World Congress on Research Integrity and the Asia Pacific Research Integrity Network are discussed. Best practices in regulatory and compliance issues are also addressed.

**AS.475.22 -- Building International Innovation, Intellectual Property, and Technology Transfer Centers**

This course examines best practices in building international centers of innovation. It also examines intellectual property and the role of intellectual property in the international community, with emphasis on how to transfer technology out of the laboratory and into the international marketplace. It examines how differing policy landscapes and incentives can acutely affect how best to approach commercialization.

## Appendix B

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

#### (a) Curriculum and instruction

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

This proposal for an AOC and PBC within the existing Master of Science degree in Research Administration is being submitted by Johns Hopkins Advanced Academic Programs (AAP) Center for Governmental Studies, which is already a well-established aggregate for master's programs with highly-regarded faculty and online as well as site-based programs. The majority of faculty currently teaching in the Master's Degree in Research Administration have terminal degrees: Either a Ph.D., Ed.D. or a J.D. The proposed faculty who have agreed to teach in the program have earned Ph.D. degrees from accredited institutions of higher education. Any new instructors recruited to teach in the online program would be required to meet the same qualifications as those teaching in the master's degree program and other programs in AAP.

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

The curriculum for the new concentration and for the PBC in International Research Administration Management has been designed in consultation with experts and practitioners in the field of research administration to ensure its coherence and cohesiveness. All the courses in the new online concentration will be as rigorous as any course offered in Advanced Academic Programs in traditional instructional formats. The courses will follow the same rigor that has been applied to the highly successful online degree programs in AAP. A formal online course development process is used to support online course development in AAP. The online course development process incorporates the Quality Matters™ research-based set of eight standards for quality online course design to ensure that the academic rigor of each online course is comparable to, or better than, the traditionally offered course.

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

The program learning outcomes are derived with input from professionals within the field, members of NCURA (National Council of University Research Administrators), as well as faculty from accredited institutions of higher education working in the field of Research Administration.

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

The Master's Degree in Research Administration is delivered via Blackboard, JHU's course management system. This new curriculum Concentration and Certificate program will use the same system. The Blackboard platform supports asynchronous interaction between faculty and students. Individual faculty may also offer synchronous interaction using Adobe Connect and other tools.

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

The AAP and the MS in Research Administration Program have established a process for identifying the appropriate faculty to design online courses. All faculty are selected based on discipline expertise, professional experience and completion of an online or onsite course development training course, offered by AAP's Instructional Resource Center (IRC).

**(b) Role and mission**

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

Refer to the main body of the proposal.

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

All the courses in the program are designed with the support of an instructional designer and multimedia specialists. The instructional designer and multimedia specialists serve as instructional technology and design consultants to assist in identifying and recommending the most effective learning technologies for accomplishing the course learning objectives. The course instructor and instructional designer identify all of the learning components of the course, how the course will be facilitated to achieve the most optimal learning outcome for the students, and the best ways to present materials. This is an iterative process that goes through several levels of review prior to the course actually being developed. Once the courses launch, the design team continually monitors the courses, and consults with the instructors to make adjustments to the course, if needed. All new online courses participate in a mid-term and end-of-term course evaluation process. The mid-term feedback is used to determine if any mid-point term corrections are needed. And the end-of-term is used to assess whether further course refinements are needed prior to the next time the course is offered.

**(c) Faculty support**

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

Faculty in this online program will be supported by the Instructional Resource Center (IRC) of Advanced Academic Programs, as well as by the program's director and assistant director. The IRC provides oversight for all online course developments, including faculty training and development. The IRC has a formal, structured faculty development approach for preparing faculty to develop and teach an online course. All faculty are required to complete three Blackboard training sessions and a training course in how to teach online. Those electing to use synchronous tools may optionally complete a course in the use of Adobe Connect or other software. These training offerings provide an overview of online learning pedagogy and introduce the faculty to some of the technologies they'll be using to develop their online course. Faculty may also sign up for one-on-one training sessions with staff of the IRC and consult peers and with the AAP leadership for additional pedagogical or technical support. A third-party help desk provider (Pearson's/Embanet-Compass) also assists in faculty technical support.

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

The Instructional Resource Center offers training on how to be an effective online instructor based on best practices from research and other related sources. All new online instructors for this program will be required to participate in this training prior to teaching their first online course.

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

The Instructional Resource Center of AAP provides a wide range of faculty support services for faculty engaged in online instruction. Faculty have access to multimedia specialists, instructional designers, technical trainers, and a 24/7 technical help desk to provide the necessary support required to effectively deliver distance education programs. In addition, AAP offers faculty development training opportunities in online pedagogy and new instructional technologies throughout the year specifically designed for online instructors.

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

The students will have online access to the Milton S. Eisenhower Library on the Homewood campus that is ranked as one of the nation's foremost facilities for

research and scholarship. Its collection of over three million bound volumes, several million microfilms, and over 13,000 journal subscriptions has been assembled to support the academic efforts of the University. The interlibrary loan department makes the research collection of the nation available to all faculty and students. The library also provides easy access to a wide selection of electronic information resources, including the library's online catalog, and numerous electronic abstracting and indexing tools. Many of the databases are accessible remotely. Librarians help students electronically and the library maintains an extensive web site to take visitors through all of its services and materials.

Refer to the main body of the proposal for additional information about library use.

**(e) Students and student services**

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

Advanced Academic Programs maintains numerous web-based resources to inform prospective students on the information they may need as an online student. These resources include: AAP main website (<http://advanced.jhu.edu/>); AAP online catalog, which includes detailed programmatic information, academic support services, financial aid, costs, policies, etc. and specific information for online learning. As new online students are admitted and enrolled, they receive timely emails with important information to help them prepare to become an online student. These emails include information on how to create their JHU log-in account for the course management systems, technical requirements, available academic support services and new online student orientation course. The new certificate program would take advantage of all of the same web-based tools to disseminate information and create community within the program.

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

- **Academic advising.** Students are assigned an advisor when accepted. Students work individually with the advisor to develop a course of study that meets the requirements of the program and the career goals of the student. The advisor regularly contacts the students to check on progress and answer questions. Courses that deviate from the program plan and have not been approved by an adviser may not count toward degree requirements. A degree audit tool is provided so students verify their selections match degree requirements.

- **Library services.** Students have online access to the Milton S. Eisenhower Library on the Homewood campus, ranked as one of the nation's foremost facilities for research and scholarship. The interlibrary loan department allows students access to resources at any other university in the nation. The library also provides easy access to a wide selection of electronic information resources, including the library's online catalog, and numerous electronic abstracting and indexing tools. Many of the databases are accessible remotely. Librarians are available to assist students remotely and the library maintains an extensive web site to take visitors through all its services and materials.
- **Services for students with disabilities.** The Johns Hopkins University is committed to making all academic programs, support services, and facilities accessible to qualified individuals. Students with disabilities who require reasonable accommodations can contact AAP Disability Services Administrator.
- **Johns Hopkins Student Assistance Program.** The Johns Hopkins Student Assistance Program (JHSAP) is a professional counseling service that can assist students with managing problems of daily living. Stress, personal problems, family conflict, and life challenges can affect the academic progress of students. JHSAP focuses on problem solving through short-term counseling. Accessing the service is a simple matter of a phone call to arrange an appointment with a counselor. Online students may call a phone number for consultation and will be directed to the appropriate resource or office. JHSAP services are completely confidential. The program operates under State and Federal confidentiality legislation and is HIPAA compliant.
- **Transcript access.** Official transcripts will be mailed upon written request of the student at no charge.
- **Student ID JCard.** The JCard serves as the student's University identification card. This card is mailed to the home address of every registered student. The JCard acts as the university library card, which enables students to check out books from the Homewood Eisenhower Library or at any of the campus center libraries, and provides access to many computer laboratories.

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

All accepted online students must meet the admissions requirements of graduate students in Advanced Academic Programs and the specific requirements of the certificate program. New online students are required to complete the "New Online Student Orientation" course prior to beginning their first online course. This course covers a broad range of topics on how to be a successful online student such as: Blackboard basics, online student learning expectations, how to access the library, how to conduct online research, and how to participate in online discussions.

Applications to the Master's Degree in Research Administration will be accepted from:

- Individuals with a minimum baccalaureate degree and either some experience in the field of research administration or a desire for a career in the field.
- To apply, students must have a minimum 3.0 GPA on a 4.0 scale (work experience, previous grades, and personal statement will also be considered)

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

All relevant program information will be kept up-to-date on the JHU-AAP web site: <http://advanced.jhu.edu/researchadmin>. It is anticipated that this new information will be added as soon as approval is given by MHEC, hopefully by the fall of 2017.

**(f) Commitment to support**

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

Faculty teaching online courses are strongly encouraged to participate in, minimally, one to two professional development opportunities annually to improve their online teaching skills. AAP's full-time and part-time faculty are encouraged to, themselves, develop online courses in their curricula. Annual evaluations take into consideration and mention all online development activity as well as scholarly activity related to distance learning. Additionally, all faculty developing online courses receive extra compensation or course release time for participating in online development.

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

Advanced Academic Programs has a commitment to online teaching as demonstrated by the resources of its Instructional Resource Center that provide course development, instructional, and technical support to new and current faculty. AAP's annual budget includes sufficient resource to sustain its online development and online course revision activities. The budget for the proposed new Concentration and Certificate in International Research Administration Management included funding for online development and maintenance. AAP's "teach out" policy demands adequate time for student completion of degree requirements should programs be discontinued.

**(g) Evaluation and assessment**

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

Refer to the main body of proposal for a discussion of how the program will be evaluated.

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

The AAP Instructional Resource Center, which offers instructional design and faculty support staff, continually participates in professional development activities to keep abreast of evidence-based approaches to online teaching. These online teaching practices are then incorporated into the new online instructor training sessions.

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

As part of the online course design process in JHU's Advanced Academic Programs, course assessments are required to be aligned with stated course learning outcomes and with the learning outcomes for the program. The new Research Administration proposed here will incorporate authentic, outcomes-based learning assessments that demonstrate student's application of learned concepts. In addition, periodically, data on student achievement in online courses is collected within AAP and distributed to faculty and administrators for continuous improvement of programs.



## Appendix C

### Faculty

#### Master of Science in Research Administration

**The Director of the Program, Dr. Marianne Woods is full time. All other faculty are part-time.**

#### Core Courses:

##### **AS.475.601. -- Introduction to Research Administration (\*required)**

Provides an overview of research administration including how it has evolved in the United States, the role it plays nationally and at the state level, and how conducting research in the U.S. differs from elsewhere. The course also examines the research continuum and the research enterprise as it exists in higher education, nonprofit organizations, and the federal government. The course allows students the opportunity to become familiar with issues, problems and strategic outcomes as they affect research administration.

#### Faculty:

- Dr. Marianne Woods, Ph.D.,J.D., Claremont Graduate University, JHU Program Director, retired Senior Associate Vice President for Research, The University of Texas at San Antonio.
- Dr. John Carfora, Ed.D., Columbia University, Associate Vice President for Research, Loyola Marymount University;
- Dr. Richard Seligman, Ed.D., UCLA, Associate Vice President for Research, California Institute for Technology.
- Dr. Susan Sedwick, Ph.D., Texas A&M University, former Associate Vice President for Research, University of Texas at Austin, Consultant Attain Higher Education Company.

##### **AS.475.602. -- Organization and Leadership for Research Administration (\*required)**

The course provides an overview of the organization, structure, and language of the research enterprise; how the enterprise functions in the discovery to commercialization pipeline; who the players and stakeholders are and how they interact; the organizational models used by institutions; the role and effect of national policy in shaping research; the impact of the information age and technology; the qualities and requirements for students to become successful leaders; and, how university, federal, and non-profit research administration organizations are managed and led. The course allows students the opportunity to become familiar with the issues faced by leadership in the ever-changing and fluid world of the research enterprise.

#### Faculty:

- Dr. H. Keith McDowell, Ph.D., Harvard University, Emeritus Vice Chancellor for Research and Technology Transfer, The University of Texas System;
- Garret Sanders, MPA, University of Albany, State University of New York, Emeritus

Executive Vice President, and Chief Operating Officer, The Research Foundation for State University of New York.

**AS.475.604. --Introduction to Legal, Ethical, Regulatory and Compliance Issues (\*required)**

During this course students examine the legal, ethical, and regulatory framework underlying most research activities in the U.S. Students discuss the trajectory of legal, ethical, regulatory and compliance issues affecting research administration, including the role of Congress, the role of the Executive Branch of government, and the role of federal and state agencies in the issuance and auditing of compliance regulations. Students will also discuss practical considerations for human subjects and animal research, financial conflict of interest, misconduct in science, export controls, safety and security and risk assessment.

**Faculty:**

- Dr. Marianne Woods, Ph.D.,J.D., Claremont Graduate University, JHU Program Director, retired Senior Associate Vice President for Research, The University of Texas at San Antonio.
- Dr. John Carfora, Ed.D., Columbia University, Associate Vice President for Research, Loyola Marymount University;
- Carpentato Myles, M.S. Management, Troy University-Montgomery, Ed.D. (in progress), University of Alabama, Director of Research Compliance, University of Alabama.

**475.800. - - Capstone Project in Research Administration (\*required)**

The Capstone Seminar is the culmination of the Master's in Research Administration where students will integrate and build on their previous coursework in the program to apply it to practical settings. Students must have completed ten of the twelve courses required for the M.S. degree in order to enroll in this course. During the semester students will identify and analyze an issue or problem and propose a solution during this semester long course. Those electing the Capstone may explore issues related to a current research administration project in a "real world" setting. This original work can be for the organization or agency for which the student works or for a hypothetical organization, but it should result in the student conducting original research and applying strategies, testing solutions, and using tools to meet the particular needs of chosen work environment. To complete the course students must write a 25-35 page capstone project paper. If the project is not completed by the end of the semester, students will need to enroll in AS.475.802.

**Faculty**

- Dr. Marianne Woods, Ph.D.,J.D., Claremont Graduate University, JHU Program Director, retired Senior Associate Vice President for Research, The University of Texas at San Antonio.

**OR**

**AS.475.801. – Research and Thesis (\*required)**

The Research and Thesis Seminar is the culmination of the Master's in Research Administration where students embark on a designing and conducting research in the field of research administration. Students must have completed ten of the twelve courses required for the M.S. degree in order to enroll in this course. The purpose of this core course is for students to refine their thesis topic, develop their research design and conduct and complete the research. Students will conduct research and write their thesis during this class in earnest. The course format is working sessions focused on specific research-oriented tasks. Emphasis will be placed on completing the literature review and methodology sections of the thesis. Students will also complete by semester end their thesis paper. To complete the course students must write a 25-35 page thesis. If the thesis is incomplete students will then need to enroll in AS.475.855.

**Faculty:**

- Dr. Marianne Woods, Ph.D.,J.D., Claremont Graduate University, JHU Program Director, retired Senior Associate Vice President for Research, The University of Texas at San Antonio.
- Dr. Jeffrey Kantor, Ph.D., Baylor University, Retired Vice President for Strategy and Research and Chief Strategy and Research Officers, Our Lady of the Lake University

**AS.475.855. --Thesis and Capstone Continuation (non-credit)**

This is a non-credit course required for those who have completed all of their course work including the Research and Thesis class or the Capstone Project in Research Administration class, but who are still working on their Research Thesis or Capstone Project. There is a fee associated with this course.

**Faculty:**

- Dr. Marianne Woods, Ph.D.,J.D., Claremont Graduate University, JHU Program Director, retired Senior Associate Vice President for Research, The University of Texas at San Antonio.
- Dr. Jeffrey Kantor, Ph.D., Baylor University, Retired Vice President for Strategy and Research and Chief Strategy and Research Officers, Our Lady of the Lake University

**CURRICULUM TRACK 1: Program Administration and Facilitation  
(One required course and choose any 3 courses)**

**AS.475.603. -- Assistive Technologies for Research Administration (offered as an elective in all three curriculum tracks but may only be taken once)**

This course explores the role of software applications and systems utilized by research administrators and by those seeking and receiving funding. Students examine and compare software applications such as COEUS, SunGard Public Sector, Grants.Gov, GrantsOnline, PeopleSoft, ERA Software, Compliance Software, SAP, and others.

**Faculty:**

- Dr. Thomas Spencer, Ph.D., University of Texas at Dallas, Director of Operations and Assistant Director Research Software Core, University of Texas Southwestern Medical Center at Dallas.
- Anne Albinak, M.S. Liberal Arts, Johns Hopkins University, Assistant Director of Finance, Whiting School of Engineering, Johns Hopkins University.

**AS.475.605. -- Program Development and Evaluation**

From the perspective of funders, this course explores ways in which initiatives become sponsored programs, the role of strategic planning, how proposals are designed and disseminated, how responses are solicited and evaluated. The important role that communication plays is emphasized, and communication strategies and work products are examined. The course also allows students to become familiar with key roles and relationships, such as those played by the program officer, the proposal development specialist, and the principle investigator.

**Faculty:**

- Dr. Jeffrey Kantor, Ph.D., Baylor University, Retired Vice President for Strategy and Research and Chief Strategy and Research Officers, Our Lady of the Lake University

**AS.475.606. -- Project Management of Sponsored Programs (Track required)**

The course explores how research projects and sponsored programs are best catalyzed and later managed utilizing project management theory, best practices, case studies, and research. The course examines the emergence of pre-award research development within the realm of research administration and its impact on post-award project management. Issues related to team building, group dynamics, and building collaborative win-win relationships with multiple principle investigators and team leaders will be emphasized in the course.

**Faculty:**

- Dr. Jeffery Anderson, Ph.D., Communications and Science Disorders, University of Florida, Associate Vice President for Research and Director of Technology Development, Florida Atlantic University

**AS.475.607 -- Grantsmanship, Grant Writing, and Evaluation of Grant Proposals**

This course describes the process of applying for, writing, and evaluating grants and sponsored program opportunities offered through non-profit, foundation, think-tank, government, and university settings. Emphasis is placed on how to evaluate opportunities, how to use online resources, how to ensure that prerequisites are met, and how to respond to RFPs with fully-vetted, well-written proposals. Students will be required to write and edit portions of proposals as well as evaluate current opportunities.

**Faculty:**

- Dr. John Carfora, Ed.D., Columbia University, Associate Vice President for Research, Loyola Marymount University.

### **AS.475.608 -- Procurement and Award Processes**

This course provides a detailed examination of request for proposal (RFP) as well as RFAs, RFQs, and other proposal submission requests. It examines the procurement processes of the government through grants, contracts, and cooperative agreements. The course also focuses on award processes from the perspective of those planning and offering them. Students compare and contrast these processes in different environments, including federal and foundation grant-making and private sector funding for specific projects. In the final segment of the course, these same processes—solicitation of proposals, and negotiation and acceptance of awards—will be examined from the perspective of the research administrator at the grantee institution.

#### **Faculty:**

- Dr. Richard Seligman, Ed.D., UCLA, Associate Vice President for Research, California Institute for Technology.

### **Interdisciplinary Courses (Taught by JHU Faculty in Government)**

#### **470.709. -- Quantitative Methods**

(Formerly Introduction to Quantitative Research Methods). Students will learn how to construct and evaluate multivariate regression models, which are useful for answering causal questions about issues related to political behavior, policy and governance. Topics include multivariate regression, interaction terms, measures of fit, internal and external validity and logistic and probit regression. The focus of the course is on using statistical methods in an applied manner. The course will also introduce students to Stata, a widely-used statistical software program. Recommended prerequisite: Political Analysis and Statistics.

#### **470.728 - Fundamentals of Nonprofits and Nonprofit Management**

The goal of this course is to convey the history, size and impact of the nonprofit and philanthropic sector while providing the fundamentals of nonprofit management. In the United States, the flourishing of nonprofit initiative is intertwined with our country's legal and tax systems, the needs of the nation in wartime, interest groups addressing social and economic inequities, the federal role in social service delivery and foreign aid, rising wealth, and perceived threats to internal security. Successful nonprofits today must have strong management systems in place in order to assure quality programs for service and impact. These systems include management of finances, human resources, information technology, marketing, performance measures and other aspects of operations. The course will help the student understand the current thinking regarding "best practices" in managing and improving nonprofit organizations and appreciate the interplay of environmental and organizational factors that influence managerial decision-making. Throughout the course, there will be a comparative perspective that looks at the scope and status of nongovernmental organizations in other countries and the influences on those organizations by their own governments, foreign aid and international philanthropy. Many of the principles recommended as "best practice" can be applied to nongovernmental organizations in other countries as well.

### **CURRICULUM TRACK 2: Financial Management of Sponsored Programs**

**(One required course and choose 3 courses)**

**AS.475.603 -- Assistive Technologies for Research Administration (offered as an elective in all three curriculum tracks but may only be taken once)**

This course explores the role of software applications and systems utilized by research administrators and by those seeking and receiving funding. Students examine and compare software applications such as COEUS, SunGard Public Sector, Grants.Gov, GrantsOnline, Convisis, PeopleSoft, ERA Software, Compliance Software, SAP, and others.

**Faculty:**

- Dr. Thomas Spencer, Ph.D., University of Texas at Dallas, Director of Operations and Assistant Director Research Software Core, University of Texas Southwestern Medical Center at Dallas.
- Anne Albinak, M.S. Liberal Arts, Johns Hopkins University, Assistant Director of Finance, Whiting School of Engineering, Johns Hopkins University.

**AS.475.609 -- Financial Management of Sponsored Programs (Track required)**

Provides an introduction to topics related to financial operations of sponsored programs, including how to establish a financial reporting system, budgeting, effort reporting, preparing for and engaging in an audit, procuring resources, and sub-contracting. Students also learn how to translate the financial terms of a proposal into a project budget and how to engage in specialized oversight and reporting, such as required for projects undertaken within the GSA Schedule.

**Faculty:**

- Kim Moreland, M.B.A., University of Kansas, Associate Chancellor for Research and Sponsored Programs, University of Wisconsin – Madison

**AS.475.610 -- Financial Accounting and Compliance Auditing**

Focuses on the specifics of financial and non-financial auditing as related to sponsored programs and grants. Clinical accounting is presented as well as the role of clinical research in a university and non-profit research environment. The audit process is also examined in detail and the roles of the financial research administrator, auditors, PI, and project participants are discussed. Special attention is paid to compliance pitfalls, record keeping, information technology, and accepted accounting standards and practices.

**Faculty:**

- Cynthia Hope, CPA and B.S. Commerce and Business Administration, The University of Alabama, Assistant Vice President of Research and Director of Sponsored Programs, The University of Alabama

**AS.475.611 – Reporting and Statistics for Sponsored Programs**

Provides hands-on opportunities for students to understand reporting requirements and work with the types of reports required for research projects and sponsored programs. The course examines reporting as a CRM (customer relationship management) and PM (project management) strategy, as well as special requirements affecting research administration. Specific types of reporting

requirements are analyzed, including federal government agency-based requirements, Star Metrics, GSA Schedule, and foundation.

**Faculty:**

- Dr. Jeffrey Kantor, Ph.D., Baylor University, Retired Vice President for Strategy and Research and Chief Strategy and Research Officers, Our Lady of the Lake University

**AS.475.617 – The Federal Acquisition Regulations and Defense Contracting**

This course covers the Federal Acquisition Regulations or FAR, with an emphasis on contracting with the Defense Department. The purpose of the FAR and its application to different types of contracts is explored. Using a hypothetical program, the development of a large federal contract program is examined from the earliest phases through the delivery of the required product. The different phases and decision points in the program are explored from the positions of multiple participants. Both federal contracts and subcontracts and related contract clauses are examined. By the end of the course, students will have a recognition of how the FAR is applied to federally funded programs.

**Faculty:**

- Dr. Jeffrey Kantor, Ph.D., Baylor University, Retired Vice President for Strategy and Research and Chief Strategy and Research Officers, Our Lady of the Lake University

**Interdisciplinary Courses (Taught by faculty in Government)**

**AS.470.709 -- Quantitative Methods**

(Formerly Introduction to Quantitative Research Methods). Students will learn how to construct and evaluate multivariate regression models, which are useful for answering causal questions about issues related to political behavior, policy and governance. Topics include multivariate regression, interaction terms, measures of fit, internal and external validity and logistic and probit regression. The focus of the course is on using statistical methods in an applied manner. The course will also introduce students to Stata, a widely-used statistical software program. Recommended prerequisite: Political Analysis and Statistics.

**AS.470.798 -- Financial Management and Analysis in Nonprofits**

The basic tools for financial management and analysis are covered in this course with a focus on those aspects that will: 1) provide needed skills to students planning careers in public and nonprofit organizations and 2) provide those working for government with tools to evaluate nonprofit and private sector organizations with which they interact. Topics include legal and audit requirements for financial reporting, disclosure laws, and state and federal registration requirements. The course will also address interpreting financial statements and assessing and managing for financial health. These basic management tools are necessary not only for basic financial management but also for creating the financial component of a Request For Proposal (RFP) from a US funding source and for those striving for organizational sustainability through "social enterprise" or earned income ventures in general.

**OR**

**AS.470.627 -- Financial Management and Analysis in the Public Sector**

The primary emphasis of this class will be to teach students how to make more informed business decisions through the use of financial management accounting information. Management accounting is concerned with the information provided managers to plan, manage control and assess an entities activities and performance. Managerial accounting concepts are universal, and can be applied to service, government and non-profit organizations. This class assumes no formal exposure to management accounting [or financial accounting for that matter] and as such will focus on how to organize and use information to run/measure/operate a public entity or program.

**CURRICULUM TRACK 3: Compliance, Legal, and Regulatory Issues  
(One required course and choose 3 courses)**

**AS.475.603 -- Assistive Technologies for Research Administration (offered as an elective in all three curriculum tracks but may only be taken once)**

This course explores the role of software applications and systems utilized by research administrators and by those seeking and receiving funding. Students examine and compare software applications such as COEUS, SunGard Public Sector, Grants.Gov, GrantsOnline, Conversis, PeopleSoft, ERA Software, Compliance Software, SAP, and others.

**Faculty:**

- Dr. Thomas Spencer, Ph.D., University of Texas at Dallas, Director of Operations and Assistant Director Research Software Core, University of Texas Southwestern Medical Center at Dallas.
- Anne Albinak, M.S. Liberal Arts, Johns Hopkins University, Assistant Director of Finance, Whiting School of Engineering, Johns Hopkins University.

**AS.475.612 - - Intellectual Property, Technology Development, Technology Transfer**

This course examines the role of research administrators in safeguarding Intellectual Property (IP), identifying patentable material, creating and operating a technology transfer office, facilitating various aspects of technology transfer, and developing and implementing such specialized agreements as non-disclosure agreements, material transfer agreements, licensing agreements and other related intellectual property agreements. Students examine case studies, case law, institutional and agency policies.

**Faculty:**

- Catherine Innes, B.S. Industrial Engineering and Operations Research, University of California, Berkeley, North Carolina University, Director, Business and Innovation.

**AS.475.613 - - Advanced Topics in Compliance, Legal, and Regulatory Issues (Track required)**

This course examines in-depth advanced issues of compliance, legal and regulatory affairs. Students will examine and discuss critical issues and real world applications in research compliance and research ethics. Topics to be examined include an in-depth examination of



research, tissue centers, use of special populations in research, informed consent, use of primates in research, and misconduct in science. This course will also look at the issues affecting high containment research and facilities, infectious diseases research, and the regulatory agencies that govern these special areas.

**Faculty:**

- Dr. Marianne Woods, Ph.D.,J.D., Claremont Graduate University, JHU Program Director, retired Senior Associate Vice President for Research, The University of Texas at San Antonio.

**AS.475.614 - - Managing Compliance, Legal and Regulatory Issues in Research Hospitals and Health Care**

This course looks at what is needed to develop, maintain, and manage compliance, legal and regulatory issues in a research hospital or health care setting. The elements of patient care, clinical trials, and other research administration issues affecting healthcare are discussed. Areas such as the Physicians Self-Referral (Stark) Law, Anti-kickback laws, HIPPA and HITECH regulations as well as the Privacy Rule, and the Security Rule are examined. Elements of a good compliance program are also discussed.

**Faculty:**

- Jane Youngers, BS Business Administration, The University of Iowa, Huron Higher Education Consultants, Retired Assistant Vice President for Research and Sponsored Programs, The University of Texas Health Science Center at San Antonio

**AS.475.615 - - Research Contracts and Industrial Agreements: Domestic and International**

This course examines how to prepare and execute research contracts and industrial agreements. It examines issues affecting both domestic and international contracting, including issues such as U.S. regulations that affect the contracting process, good terms and conditions in research contracts, maintain your nonprofit status, safe harbor laws, unrelated business income, and profit v nonprofit legal issues. The course also examines issues related to the human dynamics and cultural aspects of international and industrial contacting.

**Faculty:**

- Elaine Brock, Juris Doctorate (J.D.), Michigan State University College of Law, Contracts, Compliance, and Conflict of Interest Authority, LLC, President, and Senior Partner, Retired Senior Associate Director, Office of Research and Sponsored Projects, University of Michigan.

**AS.475.616- - Domestic and International Special Issues in Research, Legal and Regulatory Affairs**

This course discusses special issues both domestic and international that affect research administration. Special issues such as seeking, obtaining, and monitoring an export control license, issues affecting research with pharmaceutical companies, issues affecting small business contracting, and requirements for international conflict of interest, research integrity, and use of research results will be discussed.

**Faculty:**

- Garret Sanders, MPA, University of Albany, State University of New York, Emeritus Executive Vice President, and Chief Operating Officer, The Research Foundation for State University of New York.
- Christopher Ashley, J.D., University of Wisconsin-Madison, General Counsel and Secretary, Research Foundation for the State University of New York (SUNY).

**Interdisciplinary Courses (Taught by faculty in Biotechnology)****AS.410.649. - -Introduction to Regulatory Affairs (Prerequisites in Biotechnology apply. Contact the Director of the MS in Research Administration)**

Regulatory affairs (RA) comprise the rules and regulations governing product development and post-approval marketing. In the U.S., the FDA establishes and oversees the applicable regulations under several statutes, many regulations, and partnership with legislators, patients, and customers. Biotechnology products may be classified as drugs, biologics, or medical devices. Each type is regulated by a different center within the FDA. This course provides an overview of RA, its effect on product development. Topics include: RA history, regulatory agencies, how to access regulatory information, drug submissions, biologics submissions, medical device submissions, GLP, GCP, GMP, and FDA inspections.

**AS.410.687. - - Ethical, Legal & Regulatory Aspects of the Biotechnology Enterprise (Prerequisites in Biotechnology apply. Contact the Director of the MS in Research Administration)**

This course provides an overview of the important ethical, legal and regulatory issues that are critical to the biotechnology industry. The course shares current trends and essential elements of ethics, legal issues and regulations in a way that allows for an appreciation of how each influences the others. Students will examine core ethical values that guide the practice of science in the biotechnology industry. The course will provide an overview of legal issues such as protecting inventions and intellectual property and licensing, and the range of regulatory oversight mechanisms with which the biotech industry must comply. This course will review the implications of strategic ethical, legal and regulatory choices that add value to the biotechnology firm, customers and society.

## Appendix D

### Finance Information

TABLE 1: RESOURCES:					
Resource Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds	\$0	\$0	\$0	\$0	\$0
2. Tuition/Fee Revenue (c + g below)	\$53,490	\$110,190	\$183,650	\$226,980	\$264,810
a. Number of F/T Students	N/A	N/A	N/A	N/A	N/A
b. Annual Tuition/Fee Rate	\$3,566 per course	\$3,673 per course	\$3,673 per course	\$3,783 per course	\$3,783 per course
c. Total F/T Revenue (a x b)	\$53,490	\$110,190	\$183,650	\$226,980	\$264,810
d. Number of P/T Students	15	30	50	60	70
e. Credit Hour Rate	N/A	N/A	N/A	N/A	N/A
f. Annual Credit Hour Rate	N/A	N/A	N/A	N/A	N/A
g. Total P/T Revenue (d x e x f)	\$53,490	\$110,190	\$183,650	\$226,980	\$264,810
3. Grants, Contracts & Other External Sources	\$0	\$0	\$0	\$0	\$0
4. Other Sources	\$0	\$0	\$0	\$0	\$0
<b>TOTAL (Add 1 – 4)</b>	<b>\$53,490</b>	<b>\$110,190</b>	<b>\$183,650</b>	<b>\$226,980</b>	<b>\$264,810</b>

**Resources narrative:**

1. **Reallocated Funds:** The Concentration and Certificate will be funded by tuition revenues and will make no use of reallocated funds.
2. **Tuition and Fee Revenue:** The enrollment projections in Table 1 are a reasonable estimate based on current enrollment in Research Administration Courses. They reflect the existing and growing demand for graduates of professional master's programs at other universities in the nation. The MS in Research Administration is a part-time degree program, so no full-time students are expected. The tuition per course for FY2018 is \$3,566. Five courses are needed for the Certificate.
3. **Grants and Contracts:** No grants or contacts are required for the successful implementation of the Concentration or the Certificate Program. .
4. **Other Sources:** This Concentration and Certificate Program does not expect funding from other sources.

<b>TABLE 2: EXPENDITURES:</b>					
<b>Expenditure Categories</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
1. Faculty (b + c below)	\$7,384	\$14,762	\$22,142	\$29,523	\$29,523
a. # Sections offered	1	2	3	4	4
b. Total Salary	\$6,834	\$13,668	\$20,502	\$27,336	\$27,336
c. Total Benefits	\$547	\$1,094	\$1,640	\$2,187	\$2,187
2. Admin. Staff (b + c below)	0	0	0	0	0
a. # FTE	0	0	0	0	0
b. Total Salary	0	0	0	0	0
c. Total Benefits	0	0	0	0	0
3. Support Staff (b + c below)	0	0	0	0	0
a. # FTE	0	0	0	0	0
b. Total Salary	0	0	0	0	0
c. Total Benefits	0	0	0	0	0
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 (travel for Director recruit students)	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
<b>TOTAL (Add 1 – 7)</b>	<b>\$12,384</b>	<b>\$19,762</b>	<b>\$27,142</b>	<b>\$34,523</b>	<b>\$34,523</b>

**Expenditures narrative:**

1. **Faculty:** AAP's adjunct lecturers for this program will be paid \$6,834 per section taught. They will be paid \$4,000 for each online course developed. The fringe rate is estimated at 8%.
2. **Administrative Staff:** No administrative staff is needed.
3. **Support Staff:** No support staff is needed.
4. **Equipment:** No significant instructional equipment is needed for online courses.
5. **Library:** Existing library facilities are sufficient to meet the needs of the program.
6. **New or Renovated Space:** No new or renovated space will be needed.

