The Process of Establishing a New Master of Research Administration Program

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ABSTRACT

In 2009, the second largest university in the nation was awarded a grant from NCURA to initiate a new fully-online graduate program in research administration. The Master of Research Administration (MRA) was approved by the institution's Board of Trustees in March 2011 and the first classes will begin August 2011. Currently the research literature does not offer studies on establishing and developing research administration graduate programs. The purpose of this paper is to describe the planning process followed to establish the graduate program at the University of Central Florida, provide a brief overview of the program, and identify the lessons learned during these initial stages of the process.

The University of Central Florida (UCF), founded in 1963, is the second-largest university in the nation. Located in Orlando, Florida, UCF and its 12 colleges provide opportunities to 56,235 students, offering 183 bachelor's and master's degrees and 29 doctoral programs. Students come from all 50 states and 140 countries.

The Carnegie Foundation for the Advancement of Teaching classified UCF as a university with "very high research activity" (RU/VH), which is the highest designation for doctorate-granting universities.

NEED FOR ADVANCED PROFESSIONAL PROGRAMS IN RESEARCH ADMINISTRATION

Research administrators help facilitate the development and implementation of research activities within universities, non-profit and for-profit research organizations, and hospitals. Knowledgeable and skilled research administrators are critical to diminishing the administrative burden placed on researchers so they can do what they were prepared to do—conduct research. Moreover, research administrators help promote a culture of responsible conduct of research, maintain compliance, and contribute to maintaining the public trust in research. Graduate professional programs in research administration are needed to prepare highly skilled research administrators who will help the nation meet its growing demand for research innovation and economic growth.

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Only recently have any empirical studies been conducted exploring research administration theoretical models or frameworks (Atkinson, Gilleland, & Barrett, 2007). Research administration has continued to evolve in congruence with the progress of science. As the regulatory environment began to expand, it became necessary for research institutions to establish policies and procedures to support the management and administration of sponsored research programs (Beasley, 2006). These trends have included major expansion in regulations in such areas as the protection of human subjects in research, the ownership of intellectual property, the care of animals used in research, research data management, and reporting conflicts of interest. More recently, demands for research and innovation in such areas as energy, healthcare, and technology have increased in an effort to alleviate global problems (Cockburn & Stern, 2010). In sync with the demand for more research development and innovations has been the requirement for increased accountability and transparency of government agencies by the public, resulting in an influx of agency regulations and policies directed toward accounting for and reporting of research activities. With such an ever-changing and complex regulatory environment it is practically impossible for researchers alone to keep up with all the new requirements and compliance issues (Rockwell, 2009; Stanley & McCartney, 2009). The purpose of the Master of Research Administration (MRA) degree is to prepare individuals for employment as mid-level administrators at public and private research universities and

medical centers and related positions at federal agencies.

The need for continued professional development from a growing number of research administrators is demonstrated by the National Council of University Research Administrators (NCURA)' rapid membership growth; from 1983 to 2008 its membership grew 403% (Roberts, Sanders, & Sharp, 2008). One of NCURA's primary missions is to provide members with education and professional development to help research administrators remain current with the constant changes in the field and to help acclimate those entering the profession. This escalation in NCURA membership affirms that continued education and development is of great importance to research administrators. Subsequently, the need for a graduate program in research administration was clearly described in the *NCURA Request for Proposals* (2009) calling for institutions of higher education to submit implementation proposals to establish fully online graduate programs for research administrators. In this announcement the necessity for a master's degree was indicated through a 2009 survey of NCURA members. Eight-hundred and eighty five (885) respondents stated an interest in an online graduate degree in research administration. NCURA also gathered anecdotal information from federal government employees with similar interest in such a graduate program (NCURA, 2009). In the same way, UCF distributed a survey in fall 2010 using a research administrator listserv that received

189 responses. Of the 189 surveyed, a total of 74% indicated an interest in taking such a program. The respondents were primarily university research administrators; 80% agreed that a MRA program would be important and fill an educational need for those in research administration.

The projection of employment growth for research administrators is difficult to measure. Although the U.S. Department of Labor does not gather employment data for research administrators specifically, it does gather data on those working in research and development who are heavily supported by research administrators. The U.S. Department of Labor reported that wage and salary employment in scientific research and development services was projected to increase by 25% between 2008 and 2018, compared with 11% employment growth for the economy as a whole. Demand for new research and development is expected to continue to grow across all major fields, with growth being particularly strong in biotechnology and other life sciences research as increased demand for medical and pharmaceutical advances are driven by an aging population. This demand will lead to increased research and development spending in these areas and will likely increase the need for research administrators to support the expansion of these national efforts (Bureau of Labor Statistics, n.d.).

No formal survey has been conducted of potential employers' need for highly-skilled research administrators (universities, government agencies, hospitals, and other

non-profits), although there is direct and indirect evidence suggesting significant employer need for formally trained research administrators. According to Roberts (2005), it is likely that employers would desire having quality educational and professional development programs available for those new to the profession "since the vast majority of research administrators enter the profession with little or no experience in the field" (p. 100). Institutions wish to avoid penalties for noncompliance and to uphold the reputation of their faculty researchers and their institutions. Penalties for research misconduct can be severe. Potentially, research institutions could be debarred from receiving federal grants and individual researchers could be restricted from applying for any federal research funding. Depending on the authorizing legislation, penalties for noncompliance related to export controls can range between $65,000 and $250,000 for civil violations and criminal penalties for individuals can be up to $1,000,000 and 20 years of imprisonment. Preventing and avoiding such serious penalties for noncompliance is an incentive for an employer to desire quality education programs designed specifically for research administrators and for hiring highly-qualified research administrators.

PLANNING PROCESS

The initiative to investigate creating a graduate program in research administration began with the release of NCURA's call for implementation proposals to encourage institutions of higher education to create fully online graduate programs.

Initial Discussions and NCURA Proposal. During 2009, the dean of the College of Health & Public Affairs and the dean of the Regional Campuses along with the Public Administration Department chair met with Office of Research and Commercialization representatives and interested faculty members at Central Florida University to discuss collaboration in the development of a graduate program in research administration. The Department of Public Administration aligned well with research administration and had offered classes in grants and contracts for the past 12 years for the degree programs in nonprofit management and public administration at both the undergraduate and graduate levels. The department chair was experienced in establishing new programs and was ready to work on establishing a MRA within the department. In addition, Regional Campuses and Continuing Education had been successful in creating and offering fully online professional degrees nationally and agreed to help create a new program that would model their other graduate programs. In addition, Regional Campuses agreed to provide financial support to hire a full-time program coordinator in the event of an implementation grant award from NCURA. The Office of Research and Commercialization offered its expertise to help develop the NCURA proposal in collaboration with other university partners. The proposal to NCURA was

submitted and awarded in the fall semester of 2009.

Prepare White Paper. Upon the NCURA award, the next step, according to university procedures, was to submit a white paper to the Graduate Council Program Review Committee. The white paper for the research administration proposal was written by the department chair to request an opportunity to submit a formal MRA Implementation Plan proposal. The purpose of submitting a white paper is to describe and define: the overall program; student demand and head count projections; possible careers for students; student outcomes; new faculty, equipment, or space required for the new program; any similar programs at other institutions in the state to avoid duplication; and the proposed start date. The white paper was first reviewed by the dean of the college and then forwarded to the vice provost and dean of the Graduate College, who made the white paper available to all deans. Each dean conducted internal college discussions to identify concerns with the proposal, such as overlaps, duplications, or possible areas of cooperation. In spring 2010, the vice provost and dean of the Graduate College evaluated the white paper and granted approval for the Department of Public Administration to move forward with an MRA Implementation Proposal.

Hire Coordinator and Prepare Implementation Proposal. During summer 2010, a position was advertised and a full-time program coordinator was hired. The program coordinator recruited an advisory board and began developing and writing the implementation plan with the chair and with input from the advisory board and faculty members. During this time the coordinator used this input and knowledge and experience in instructional design and research administration to gather resources and develop the framework for the curriculum core of the program.

Develop Course Syllabi. In conjunction with writing the Implementation Proposal, all new MRA course syllabi had to be created and submitted to the College Curriculum Committee for review and approval. The instructional model used to develop the MRA is based on the Kemp, Morrison, and Ross Model (1994). This model is not a linear model and consists of nine revolving elements: instructional problem, learner characteristics, subject content, instructional objectives, sequence content, instructional strategies, instructional delivery, evaluation, and resources. Based on the instructional design process, the program coordinator gathered resources to identify learner competencies, learner characteristics, and instructional objectives, and created a syllabi template to distribute to all faculty and instructors qualified to teach the new courses, with core learning objectives stated for each course. Faculty members created a syllabus for their specific course content that included information on textbooks/journal articles required for the course, program goals, course learning objectives, class policies, expectations, how assignments and learning objectives would be assessed, and

the weekly assignment schedule. The syllabi had to be approved by the department and college curriculum review committees prior to submission of the MRA Implementation Proposal to the Graduate Council.

Graduate Council Review. Once the syllabi were approved, the Implementation Proposal was reviewed and approved by the Graduate Council in January 2011. The MRA was included on the Board of Trustees schedule for the next meeting in March. During this time work began with Regional Campuses and college units to develop marketing materials, advertising outlets, and the program website.

Board of Trustees Review. Final approval was obtained from the Board of Trustees. With this approval the program could now be advertised and set up to accept online student applications. The program began accepting applications within two weeks after approval. The Graduate College will now send the proposal with comments to the Florida Board of Governors for consideration at the June meeting and the MRA Program will be placed on the state inventory. See Appendix A for the timeline.

ADMINISTRATION OF THE PROGRAM

The administration of the program resides within the Department of Public Administration under the direction of a program coordinator whose role is to oversee the MRA program. The department chair supervises the program coordinator. This program coordinator is part of the department's admissions committee that meets monthly to make admission and administrative decisions regarding graduate programs with the department. Currently, members include the coordinator for the Master of Public Administration, the coordinator for the Master of Nonprofit Management, the coordinator of the Master of Science in Urban and Regional Planning, and the departmental coordinator for academic services. The admissions committee reviews applications to make admission decisions regarding all students entering the new program.

ADVISORY BOARD

In September 2010, the University of Central Florida MRA Advisory Board was formed with a broad array of representatives from public, private, and nonprofit sectors. Criteria used in selecting the members of the board were: recommendations from professional peers and diversity of institutions, expertise, and geographical locations. It was important to hear from those who were active and knowledgeable in the profession, those who might hire graduates of the program, and to have at least one member who could be a potential student of the program. The MRA Advisory Board meets at least three times during the year, face-to-face and virtually, to address resources as well as curriculum and competencies. Many of the members were able to meet at the 52nd NCURA Annual Conference in Washington, DC, on November 2, 2010.

Primarily, the advisory board will serve in five areas:

- Providing guidance and input into the MRA curriculum, delivery methods, develop case studies for use in courses, be guest speakers, identify guest speakers, input into student assessment, and program evaluation;
- Engaging in marketing and recruitment of students—input into methods used to advertise the MRA such as a website, and dissemination of program information at professional meetings and conferences;
- Providing names of potential new advisory board members who would contribute to the MRA program;
- Recommending areas for research and collaborations; and
- Coaching students in their culminating event (i.e., matching board members to students as mentors).

The MRA Advisory Board provided guidance in the development of the curriculum and compelling letters of support for the Implementation Proposal. Board members made recommendations on the targeted student population for the MRA Program. It was agreed to first target research administrators already working in the field with approximately five years of experience. The board also recommended targeting career changers such as those in the pharmaceutical industry and other industries experiencing layoffs, but having experience and education in areas such as science that would be useful knowledge for a research administrator.

It was recommended that we create a diverse cohort of students with bachelor's degree in multiple areas. The goal is to accept students from multiple types of organizations across the nation working in universities, research centers, medical and biomedical research centers, federal agencies, and private research institutions. This will give students an opportunity to build a professional network of research administrators from multiple organizations and locations. It will strengthen the program and enhance the student experience.

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FACULTY SELECTION

Faculty were selected based on particular criteria in regard to the standards specified for graduate programs under the Southern Association of Colleges and Schools Commission on Colleges , the regional body for the accreditation of degree-granting higher education institutions for the region, the university's policies for faculty teaching distance education programs, and the professional

research administration experience of the instructors. The qualifications for the MRA Coordinator required a terminal degree in a related field and qualification as a certified research administrator. Professional experience as a research administrator was required, and some online teaching experience at the graduate level. As an interdisciplinary program, faculty in the Departments of Public Administration, Business Administration, and Legal Studies were also recruited. Because the program is administered by the Department of Public Administration, the hiring and selection of faculty was conducted by the department chair. The program coordinator's hiring and selection committee was composed of five members. The committee included the department chair, two members from the university's research administration office, two public administration faculty and the college research director. The program coordinator selected has a Ph.D. in Instructional Technology, is a Certified Research Administrator (CRA), and has four years teaching online at the graduate level and over 20 years' experience in research administration. Three of the other MRA faculty are CRAs and all but two have terminal degrees. University accreditation and university policy require all faculty teaching online to complete a specific course designed to prepare faculty to teach online using a combination of seminars, labs, consultations, and web-based instruction. The time commitment requires a minimum of 80 hours. In addition to hiring faculty and instructors, there are plans to include other professionals from the research administration community around the country as guest lecturers to bring a balance of theoretical and practical teaching methods to the program.

CURRICULUM FRAMEWORK

The curriculum focuses on a holistic approach towards equipping students with the complex skills to resolve and explore current issues related to the research enterprise. As mentioned earlier, the Kemp, Morrison, and Ross Model (1994) is being used to develop the program. The MRA will be delivered completely online as required by the NCURA implementation award. Research administrator professional competencies identified by the Research Administrators Certification Council (RACC) were integrated throughout the core courses. The RACC study (2008) examined 206 task statements and 13 knowledge areas. The target student audience is adult working professionals without graduate degrees, who will take two online classes per semester using a cohort model for six semesters. Table 1 illustrates how the RACC areas are integrated into the courses required within the MRA program.

Table 1. Matrix of RACC's Knowledge, Skills, and Values

CURRICULUM COMPONENTS RACC KNOWLEDGE, SKILLS AND VALUES	INTRO TO RESEARCH ADMIN	GRANT & CONTRACT MGMT	LEGAL & REGULATORY FWK	FINANCIAL MGMT IN RA	ETHICAL & LEGAL ISSUES	CONTRACT FOR SPON PROG	IP, TECH TRANSFER & COMM	AUDITS FOR RESEARCH ADM	LEADERSHIP & ORG MODELS	HUMAN RESOURCE MGMT	STRATEGIC PLN & MGMT	PUBLIC PROG EVAL TECHN
I. Project Development and Administration												
A. Collection and Dissemination of Information	X	X					X		X		X	X
B. Proposal Development		X					X		X			
C. Administration of Awards		X	X	X		X		X				
D. Ethics and Professionalism	X				X		X		X	X	X	
E. Intellectual Property							X					
F. Electronic Research Administration		X		X			X	X			X	
II. Legal Requirements and Sponsor Interface												
A. Regulations and Statutes	X	X	X	X	X	X	X	X		X	X	X
B. Compliance – Federal Sponsors and General							X					X
C. Federal/Sponsor Appeal Procedures			X					X				
III. Financial Management												
A. Budgeting/Accounting		X		X			X	X			X	X
B. Costs	X	X		X			X				X	X
C. Sponsor Financial Reporting				X				X			X	
IV. General Management												
A. Facility Management	X						X		X		X	
B. Contracts and Purchasing		X					X	X				
C. Records Management							X	X			X	X
D. Human Resource Management										X	X	X
13 Specific Knowledge & Skill Areas												
1. Codes and Regulations		X	X	X	X	X		X			X	X
2. Ethical/Legal Issues	X		X		X							X
3. Management Skills									X	X	X	X
4. Information Management		X		X			X	X				X
5. Leadership Skills									X		X	X
6. Communication Skills	X	X				X	X	X		X		X
7. Analytical Skills			X	X	X	X		X				X
8. Interpersonal Skills	X	X						X	X	X		X
9. Organizational Skills	X	X					X		X		X	X
10. Change Management									X	X	X	X
11. Conflict Management						X	X	X	X	X		X
12. Diversity Management	X								X	X	X	X
13. Financial Skills		X		X		X	X	X			X	X

The overarching goals of the MRA program are to:

- Educate professional research administrators to address the issues facing our research organizations;
- Integrate collaboration and participation of national experts in research into the curriculum;
- Foster a holistic and interdisciplinary approach to problem solving in research administration issues;
- Instill a sense of ethics and service to the research community into new and current professionals; and
- Address the need for providing excellence in research administration within our nation.

Areas of instruction are oriented toward the common challenges encountered in research organizations during various phases of the research process, including: project development, project and financial management, the legal and regulatory requirements, compliance, technology transfer, leadership development, organizational models, and other areas such as ethics and ethical decision-making. The research administration degree program consists of 36 semester credit hours at the graduate level. The twelve courses are all required core courses with no elective requirements. See Table 2 for a list of courses and brief descriptions of the content to be covered in the courses. Four of the required courses (12 credit hours) are currently offered in the Master of Public Administration program. Eight new courses (24 credit hours) were added to the university's catalog. Existing courses were modified to focus on topics and issues most prevalent to research administrators. For example, the current grant writing and management course has been targeted in the past for those primarily working in not-for-profit organizations, which often are involved in providing social programs and not in conducting research activities. The modified course will emphasize the specific requirements and regulations for the preparation and submission of research proposals as opposed to community program proposals. The Public Program Evaluation Techniques course will be modified to be applicable to the types of research and evaluation projects of interest to research administrators. This course will encompass the MRA program's culminating project where students will be required to develop a program evaluation plan for a research organization integrating the knowledge and skills developed in previous classes in the program.

Table 2. Courses and Descriptions

Course Title	Description
Introduction to Research Administration	An overview of research administration lays the foundation for understanding the complex environment of this field. Among the topics covered will be: history of the profession, relationship between research administrator (as liaison) and the various partners in research (faculty member, sponsor, etc.), and purpose and value of research.
Legal and Regulatory Framework	This course outlines the requirements that govern research to include an introduction to the OMB Circulars, the Federal Acquisition Regulations, and other Federal, State, and local regulations as a basis for understanding the legal requirements associated with adhering to sponsor terms and conditions.
Grant and Contract Management	This course covers such topics as how to seek out and identify funding sources, development of applications for funding assistance, and how to respond to requests for proposals from government agencies as well as applications for funding from corporate and foundation sources.
Leadership and Organizational Models in Research Administration	This course introduces general management concepts in preparation for leadership roles in research administration, the tools of managerial decision-making and team building, and acquaints students with theories and principles of various business organizational models in research administration.
Strategic Planning and Management	An examination and analysis of planning, goal-setting, and strategic management in public sector organizations. This is a service learning course. Students will work collaborate with a research office to develop and write a strategic plan.
Human Resource Management	A study of human resource management designed to improve and advance skills through understanding human resource policies, procedures and practices. Topics include: quality customer service, professional development, mentoring, training programs, conflict resolution.
Financial Management in Research Administration	This course builds on the foundation for understanding cost accounting in research administration to include financial concepts related to Facilities and Administrative (F&A) rate proposal and allocation, proposal budget preparation, and cost allocability, allowability and consistency.
Contracting for Sponsored Programs	An introduction to legal concepts/strategies and essential elements of contract formation to include: basic contract types, negotiation, navigating troublesome clauses, subcontracts and sub-recipient monitoring.
Intellectual Property, Technology Transfer and Commercialization	This course focuses on the elements of intellectual property relating to copyright, patents and trademarks. Some of the key concepts covered include: patent law, Bayh-Dole Act, data rights, economic development, licensing and commercialization.
Audits for Research Administration	An overview of the financial and non-financial audit process for research contracts and grants. Topics covered include: cost transfers, CAS exemptions, file maintenance, corrective action plans, and sponsor site visits.
Ethical and Legal Compliance	A study of critical compliance issues and the importance of responsible conduct of research. Among the topics covered will be: protection of human/animal subjects, research misconduct, export control, conflicts of interest, etc.
Public Program Evaluation Techniques	A study and application of the techniques and skills utilized in the evaluation of public programs. This course requires students to integrate previous course learning into the development of a program evaluation plan for a research organization. Students will develop the methodology for data collection and data analysis and relate these to the performance of the organization. The course is the culminating experience for graduate students.

Actual course development will begin this summer and over the next year, with MRA faculty working in collaboration with MRA advisory board members, subject matter experts in research administration, the UCF Faculty Center for Teaching and Learning, and UCF Webcourses Development.

LEARNING OUTCOMES

In order to reach the primary learning outcome, graduates of the MRA program must demonstrate their effectiveness as research administration professionals. Effectiveness means the application of knowledge and skills to facilitate the development of vision and goals, create and implement research development activities, and solve issues and problems presented during the implementation of research programs. An overarching theme of this learning outcome is the long-term comprehensive perspective embodied in the holistic program of study. In a broad sense, students will be expected to complete the program with a mastery of foundational concepts involving the administration, legal requirements, ethical conduct and compliance, proposal development, budgeting, contract negotiations, human resources, financial management, comprehensive strategic planning, the responsible conduct of research, intellectual property, technology transfer, commercialization, resource management, and the social aspects of research administration.

To meet the secondary learning outcome, graduates will employ critical reflective perspectives concerning the creation of knowledge, the application of research administration skills, and professional practice and ethics. They must continually consider their own values and those of their research communities in undertaking the administration of research. Their reflection will consider issues of research facilitation, professional integrity and accountability, and research development and sustainability.

In addition, the expected skills a research administrator should possess include problem-solving and implementation. Thus, the learning outcomes will be focused on problem formulation, research skills, data gathering, and analytic techniques including statistical methods, forecasting, and data analysis. In the Program Evaluation Techniques course, students are expected to synthesize knowledge and experience gained throughout the MRA program of study in a culminating project that is relevant to research administration. The MRA program will be evaluated and assessed annually as part of the UCF Institutional Effectiveness Plan. Specific indicators will measure the success of reaching targeted learning goals and outcomes to determine the effectiveness of the program of study. This annual assessment will provide formative data that can be used to modify curriculum and instruction to improve student performance.

LESSONS LEARNED AND CONCLUSION

Establishing a new graduate program in an accredited institution of higher education takes both time and patience. First, it is imperative to have the support of the chair of the department in which the graduate program will be situated. The chair will be invaluable as a resource in understanding and learning the institution's process and procedures and in formulating the proposals for submission to the college and university review committees. In this particular case, the target was to prepare research administrators who could work in various research areas, such as engineering, technology, education, and healthcare, and work in either large research institutions or smaller liberal arts colleges. Therefore, it was appropriate to create and base the program in Public Administration. Other graduate programs in research administration have strengths in clinical research or life sciences research and have established their programs in other departments within their institutions that align with their particular focus. In addition, the chair is knowledgeable of the restrictions and requirements demanded under the regional accrediting body and the state's requirements specific to graduate programs.

Second, it is also important to anticipate any issues that may arise from related disciplines and to have discussions with other departments for opportunities to collaborate during the initial planning process. This will avoid issues or "turf wars" that could arise when the white paper is distributed to all college deans in the event of overlaps in curriculum. Having faculty with expertise in multiple areas will help strengthen the program. This MRA program was able to partner with Legal Studies and two of the courses will be taught from legal experts in regards to legal regulatory issues. The faculty from Business Administration who will be teaching the IP, technology transfer, and commercialization course is currently a leader in university incubators, has experience teaching, and is the associate vice president of research. Third, one of the most advantageous assets for this MRA program has been the advisory board. Having an advisory board of highly knowledgeable and respected research administrators from different types of institutions is invaluable in creating a program that is relevant, rigorous, and comprehensive. The advisory board has contributed immensely to the creation of the program and plans to continue to provide its input and feedback as courses are being built online. The advisory board will also contribute to the evaluation and assessment of the MRA program to identify necessary modifications and updates to the program of study. In addition, the advisory board will generate a vision for future possibilities and directions for the program.

FUTURE RECOMMENDATIONS

As the research administration profession moves forward and other advanced degree programs are established, it will be important to create an

accreditation body for such programs. External reviews ensure the quality of a degree program and provide some assurance and protection for interested professionals seeking an advanced degree in research administrator. Accreditation encourages those who offer these programs to closely examine their content, advocating continuous improvement of programs and student performance.

> **"Publications are important within any emerging professional field. In the near future it will be important to identify numerous peer-reviewed journals interested in research administration that will promote rigorous research into the practice, methodologies, and the formation of theories related to the administration of research."**

Publications are important within any emerging professional field. In the near future it will be important to identify numerous peer-reviewed journals interested in research administration that will promote rigorous research into the practice, methodologies, and the formation of theories related to the administration of research. Having advanced degree programs means that tenure-earning faculty will be conducting research within research administration who will need to publish their studies in multiple peer-reviewed journals. Research published in the field may also lead to the publication of textbooks and other resources that could be used as part of the MRA course content. Currently, limited numbers of textbooks related to research administration are available.

There are plans to extend the MRA program in the near future to accept international students. Having research administrators from other countries enrolled in the MRA program will contribute to a better understanding of issues and challenges faced when conducting international research collaboration and will enable the building of global networks among research administrators and research institutions and programs.

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APPENDIX A
PLANNING TIMELINE

Date	Participants	Planning Activity
Sept. 2009	Department Chair, Assistant VP of Research, Senior Contracts Manager, Director of College Research Center	Meetings to discuss and develop proposal to NCURA for MRA program
Oct. 2009	Department Chair, Assistant VP of Research, Senior Contracts Manager, Director of College Research Center	Submitted proposal to NCURA
Dec. 2009	Department Chair, Assistant VP of Research, Senior Contracts Manager, Director of College Research Center	Notification of Award from NCURA
Dec. 2009	Department Chair	White paper Submitted to College of Graduate Studies
Spring 2010	Vice Provost & Dean of Graduate Studies	White Paper Approved
May–Aug. 2010	Department Chair, Assistant VP of Research, Senior Contracts Manager, Director of College Research Center	Recruited and hired Program Coordinator
Aug.–Sept. 2010	Department Chair, Assistant VP of Research, Senior Contracts Manager, Director of College Research Center, MRA Advisory Broad	Advisory Board created Identify program faculty Competencies identified Draft curriculum
Sept. 2010	Department Chair, Program Coordinator, Vice Provost & Dean of the Graduate College	Discuss implementation proposal and forms
Sept. 2010	Department Chair, Program Coordinator	Meeting College of Graduate Committee
Sept. 2010	Department Chair, Program Coordinator, MRA Advisory Board	Began writing the implementation plan
Oct.–Dec. 2010	Department Chair, Program Coordinator, MRA Advisory Board	Writing Implementation Plan Develop Course Syllabi
Oct. 2010	Regional Campuses Director, Department Chair, Program Coordinator	Meeting Regional Campus to formulate program costs and tuition and receive support for new program
Oct.–Nov. 2010	Department Chair, Program Coordinator, Vice Provost & Dean of Graduate Studies	Meeting on Implementation Plan and draft submission Revisions to draft
Oct. 2010	Department Chair, Program Coordinator	Approval Department /College
Jan. 2011	Department Chair, Program Coordinator	Approval Graduate Council
Feb. 2011	Department Chair, Program Coordinator	Complete Final Draft Send Proposal to BOT
March 2011	Regional Campuses Director, Department Chair, Program Coordinator	Meeting Regional Campus to discuss marketing new program
March 2011	Department Chair, Program Coordinator	BOT approval sought and obtained

EVENTS LEADING TO IMPLEMENTATION

Date	Implementation Activity
April 2011	Disseminate marketing materials and advertising Hold virtual open houses to inform the community Accept student applications
May 2011	Schedule classes / Review admissions
Aug. 2011	Admit first cohort to program Classes begin
Aug. 2012	Admit second cohort to program
May 2013	Graduate first cohort from program

Introduction to Research Administration

An overview of Research Administration lays the foundation for understanding the complex environment of this field. Among the topics covered will be: history of the profession, relationship between research administrator (as liaison) and the various partners in research (faculty member, sponsor, etc.), and purpose and value of research.

Legal and Regulatory Framework

This course outlines the requirements that govern research to include an introduction to the OMB Circulars, the Federal Acquisition Regulations, and other Federal, State, and local regulations as a basis for understanding the legal requirements associated with adhering to sponsor terms and conditions.

Grant and Contract Management

This course covers such topics as how to seek out funding, how to complete applications for funding assistance, and how to respond to requests for proposals from government agencies as well as applications for funding from corporate and foundation sources.

Leadership and Organizational Models in Research Administration

This course introduces general management concepts in preparation for leadership roles in Research Administration, the tools of managerial decision-making and team building, and acquaints students with theories and principles of various business organizational models.

Strategic Planning and Management

An examination and analysis of planning, goal setting, and strategic management in public sector organizations. This is a service learning course and requires students to collaborate with a research office to develop and write a strategic plan.

Human Resource Management

A study of human resource management designed to improve and advance skills through understanding human resource policies, procedures and practices. Topics include: quality customer service, professional development, mentoring, training programs, conflict resolution.

Financial Management in Research Administration

This course lays the foundation for understanding cost accounting in Research Administration to include financial concepts related to Facilities and Administrative (F&A) rate proposal and allocation, proposal budget preparation, and cost allocability, allowability and consistency.

Contracting for Sponsored Programs

An introduction to legal concepts/strategies and essential elements of contract formation to include: basic contract types, negotiation, navigating troublesome clauses, subcontracts and sub-recipient monitoring.

Intellectual Property, Technology Transfer and Commercialization

This course focuses on the elements of intellectual property relating to copyright, patents and trademarks. Some of the key concepts covered include: patent law, Bayh-Dole Act, data rights, licensing and commercialization.

Audits for Research Administration

An overview of the financial and non-financial audit process for research contracts and grants. Topics covered include: cost transfers, CAS exemptions, file maintenance, corrective action plans, sponsor site visits.

Ethical and Legal Compliance -

A study of critical compliance issues and the importance of responsible conduct of research. Among the topics covered will be: Export Control, Conflicts of Interest, Protection of Human/Animal Subjects, Research Misconduct, etc.

Public Program Evaluation Techniques

A study and application of the techniques and skills utilized in the evaluation of public programs. This course requires students to integrate previous course learning into the development of a program evaluation plan for a research organization developing the methodology for data collection and data analysis and relating these to the performance of the organization. The course is the culminating experience for graduate students.