October 10, 2014

<u>UNIVERSITY CURRICULUM COMMITTEE – 2014-2015</u>
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Ex-Officio - Provost Pamela S. Whitten
Undergraduate Student Representative - Mr. William Heaton
Graduate Student Representative - Ms. Lauren E. Mullenbach

Dear Colleagues:

The attached proposal for a new Undergraduate Professional Certificate in Pharmacy Entrepreneurship
will be an agenda item for the October 17, 2014, Full University Curriculum Committee meeting.

Sincerely,

William K. Vencill, Chair
University Curriculum Committee

cc: Provost Pamela S. Whitten
        Dr. Laura D. Jolly

Committee on Facilities, Committee on Intercollegiate Athletics, Committee on Statutes, Bylaws, and Committees,
Committee on Student Affairs, Curriculum Committee, Educational Affairs Committee, Executive Committee, Faculty Admissions Committee,
Faculty Affairs Committee, Faculty Grievance Committee, Faculty Post-Tenure Review Appeals Committee, Faculty/ Staff Parking Appeals Committee,
Human Resources Committee, Strategic Planning Committee, University Libraries Committee, University Promotion and Tenure Appeals Committee
An Equal Opportunity/Affirmative Action Institution

I.   Basic Information

1. Institution: <u>The University of Georgia</u>   Date: <u>September 16, 2014</u>

2. School/College: <u>College of Pharmacy</u>

3. Department/Division: <u>Nontraditional Education and Outreach</u>

4. Certificate Title: <u>Professional Certificate in Pharmacy Entrepreneurship</u>

5. Level (undergraduate or graduate): <u>Undergraduate</u>

6. Proposed starting date for program: <u>January 1, 2015</u>

7. Abstract of the program for the University Council's agenda:

   Provide a one or two page summary of the proposed program that includes an overview and highlights of the response to the criteria in Section II.

Abstract: The Professional Certificate in Pharmacy Entrepreneurship has been designed to inspire the student pharmacist to explore opportunities and innovations in their field and to gain business knowledge in order to pursue their future entrepreneurial endeavors. Every area of pharmacy practice needs pharmacists who are strong leaders, excellent communicators, and visionaries for the future of the profession. The pharmacy profession, the healthcare system, and the State also need pharmacists who possess a strong business and entrepreneurship acumen required to advance and grow the profession. This certificate program will provide a foundation of business knowledge for every participating student, but more importantly expose students to the important concepts of change, innovation, and entrepreneurship applied to today's challenging and competitive medical environment.

Currently, the profession is evolving from a product-oriented (dispensing medication) to a service-oriented (delivering patient care) model. With the advancement of medicine and technologies, the changes in health care regulation, and the shifting world demographics and politics, the role of the pharmacist will continually change. For traditionalists, this change is a threat to the profession. Innovators and entrepreneurs see this same change as an opportunity. It is incumbent upon the College of Pharmacy to assure we produce pharmacists who are prepared for the dynamic and ever changing future of the profession. Integrated in all four years of the professional doctor of pharmacy degree program, this certificate curriculum will guide the student pharmacist through the process of thinking innovatively and entrepreneurially. Important to the process, students will progress from didactic classroom instruction to real-world application of innovation and entrepreneurship in both traditional and new pharmacy practice.

In the past, graduating pharmacists understood the entrepreneurial path to owning a pharmacy enterprise. While entrepreneurial opportunities may be even greater and more diverse today, the path is less clear and often misunderstood. With the demand for high-wage pharmacy jobs in community pharmacy (both chain and independent), health-system pharmacy (hospitals and long-term care),

managed care, specialty pharmacy, and industry, thinking entrepreneurially or innovatively has been diverted or altogether forgotten. The changing demographic of students compounded with pharmacy curriculums with little to no business or entrepreneurial training have resulted in a significant decline in the interest of pharmacy students owning a business enterprise. Despite these trends, pharmacy innovators and entrepreneurs are needed more than ever in the areas previously mentioned and particularly in less populated areas where access to healthcare may only be through the community pharmacy.

The purpose of the certificate program is to prepare the student pharmacist to be able to recognize and take advantage of entrepreneurial opportunities. Several goals have been developed to achieve this purpose. The first goal explores the importance of leadership and business knowledge to pharmacy practice through case studies, industry benchmarks, and best practices. The second goal is to provide the student with an interactive and motivating entrepreneurial educational experience through interaction with entrepreneurs from many areas of business. Finally, the third goal of the program is to develop the critical thinking skills needed in the profession to enhance innovation in pharmacy and entrepreneurial activity.

Providing the opportunity for students in the College of Pharmacy to explore entrepreneurship and earn a specialty certificate will draw a diverse population to the program. Students will develop the skills necessary to move pharmacy forward in this changing healthcare and economic environment and will have a more competitive edge upon entry into the job market. Equipped with a business acumen, graduates will be prepared to navigate the business planning process and increase their chances to obtain financing for their ventures earlier in their career. This in turn will benefit the profession and the University as more successful graduates will build wealth and become supporters of the profession, the community, and the College as well as the University.

The Professional Certificate in Pharmacy Entrepreneurship program will attract students interested in all practice areas of pharmacy and provide knowledge-based, skill-based, and application-based courses in a variety of course settings. The proposed curriculum includes classroom instruction and introductory and advanced experiential training through required and elective courses. Student pharmacists in the program will receive instruction and mentoring from tenured, clinical, and public service faculty. Students who earn the certificate will have navigated through all academic learning and pharmacy practice environments and will be prepared to incorporate leadership, innovation, and entrepreneurial activities into their chosen profession.

8. Submit letters of support from the various academic unit heads involved in developing the program initiative or whose support is vital to its success.

This program will be fully housed within the College of Pharmacy and is supported by the Dean's Office. No support will be needed from units outside of the College.

II. Response to the Criteria for All Programs

The criteria that proposed new programs are expected to meet in order to be approved and implemented within the University of Georgia are listed below. Please provide sufficient explanation as to how the proposed program satisfies each criterion.

1. *The purpose and educational objectives of the program must be clearly stated, and must be consistent with the role, scope, and long-range development plan of the institution.*

    A. State the purpose and educational objectives of the program and explain how the program complements the role, scope, and long-range development plan of the institution.

Purpose: Increase the knowledge, skills and abilities of student pharmacists so they may take advantage of future entrepreneurial opportunities in the profession. This will be accomplished through the following educational goals and objectives:

1. Provide an interactive and motivating entrepreneurial educational experience.
    a. Prepare student pharmacists with the essential business skills necessary to manage an innovative and successful business.
    b. Assist pharmacy students in developing positive behaviors and beliefs about business by creating a dialogue and sharing ideas between students, pharmacy owners, and other entrepreneurs.
    c. Provide opportunities for visitations to pharmacies and other related businesses as well as panel sessions with owners and other entrepreneurial or industry guest speakers.
2. Develop critical thinking skills to enhance leadership, innovation, and entrepreneurship in the pharmacy profession.
    a. Develop skills to monitor trends and identify potential business opportunities in all pharmacy practice settings.
    b. Analyze external and internal factors to assess the feasibility as well as the capability of the organization to implement a new venture or program.
    c. Build a business case for an opportunity by assessing capabilities, market demand, technical requirements and financial needs.
    d. Develop a launching strategy for a new business venture, clinical service, or other innovative pharmacy program.
3. Demonstrate the importance of leadership and business knowledge in the current pharmacy practice environment.
    a. Monitor industry trends and best practices and apply business concepts to current pharmacy practice.
    b. Utilize case studies to review and understand the importance of financial statements and inventory management.
    c. Apply industry benchmarks to determine the health of a pharmacy and assess different valuation methods to determine a pharmacy's or pharmacy service's worth.
    d. Identify differentiation and marketing strategies to grow a pharmacy practice by aligning with patient needs.
    e. Describe the importance of leadership and communication in pharmacy practice with an emphasis on patient management, operations, finances, marketing, and human resources.

The goals of this program align with the strategic plan for the College of Pharmacy, the evolving demands of the profession and recommendations of the Dean's Advisory Board. As part of the

University mission for outreach, this program will continue to provide valuable services to all areas of the State, including rural areas where pharmacy is the mainstay of the healthcare system.

> B. Describe the interdisciplinary nature of the proposed program. Which school(s) or college(s) and department(s) will be involved in the development of the program? Describe the expected stage of development for this program within five years.

Currently the College of Pharmacy offers multiple courses in entrepreneurship in partnership with the Small Business Development Center's public service faculty. The existing offerings include two elective courses and an advanced pharmacy practice experience. This certificate program will combine required courses from the pharmacy curriculum, including practice management, communications, and introductory pharmacy practice experience in addition to the entrepreneurship courses. Courses will be taught by tenure-track, clinical track, and public service track faculty. It will provide junior faculty in both units the opportunity to engage in program development and delivery. Public Service Faculty in both units will be responsible for development and administration of the program. The ten-year relationship between these units will support the program over the next five years and beyond, and minimal additional development will be required to fully implement the certificate program.

> 2. *There must be a demonstrated and well-documented need for the program.*

> A. Explain why this program is necessary.

Trends in the pharmacy industry are rapidly changing the landscape of the profession. Competition in the retail market, pressure from third-party insurance companies to lower reimbursements and to utilize prescription mail order, and an ever-changing healthcare system are creating increasing rifts in the work environment for future pharmacists. Although many believe independent pharmacies are a dying breed, especially with the proliferation of the national chains, independent pharmacies are still economic pillars in many of Georgia's towns and cities, often contributing to their unique character or charm. More importantly, they provide personalized service to patients and their communities. Currently the average age of an owner of an independent pharmacy is 62. Considering issues above, the change in demographics in the profession and the emphasis on clinical skills, the traditional path for ownership has become less clear. This program will expose students to the opportunity of ownership and create a clear entrepreneurial pathway for them.

Additionally, the clinical training of new pharmacists has changed the traditional role of dispensing medications to a more patient-centered practice model. According to the Association of American Medical Colleges, the nation could face a shortage of up to 150,000 physicians in the next 15 years. The greatest demand will be for primary-care physicians. Primary care, internal medicine, and pediatrics have a larger role under the Affordable Care Act. This unmet demand could create a shift in the pharmacy profession from dispensing to clinical. Partnering with primary care physicians to help alleviate the unmet demand and to coordinate care with patients is a great future opportunity for pharmacists with clinical training to start new businesses or expand traditional pharmacy practice models. The certification will train students to assess and to implement business models that align more with other medical fields or the general medical field in a community.

Lastly, the Certificate in Pharmacy Entrepreneurship is necessary in helping students develop critical thinking skills to assess and capitalize on opportunities that have not materialized yet. The pharmacy profession will continually evolve as pharmaceuticals and medicine advances, demand changes, technology progresses, and the heath care landscape evolves. The profession needs pharmacists with an entrepreneurial mindset regardless of whether they plan to own a business or work for a corporation. This certification will help set the foundation for leadership and will build the skills to manage an enterprise and to capitalize on future opportunity.

B. In addition, provide the following information:

1. Semester/Year of Program Initiation – **Spring Semester 2015**
2. Semester/Year Full Implementation of Program – **Spring Semester 2016**
3. Semester/Year First Certificates will be awarded – **Spring Semester 2017**
4. Annual Number of Graduates expected (once the program is established) – **18**
5. Projected Future Trends for number of students enrolled in the program – **72**

3. *There must be substantial evidence that student demand for the program will be sufficient to sustain reasonable enrollments in the program.*

A. Provide documentation of the student interest in the program, and define what a reasonable level of enrollment is for a program of this type. Provide evidence that student demand will be sufficient to sustain reasonable enrollments.

Entrepreneurial skills are essential for moving the pharmacy profession forward. In addition, many current student pharmacists desire these skills so that they can incorporate them into their practice or become pharmacy business owners. First-year students will be introduced to the concepts of entrepreneurship, innovation, and leadership in PHRM(PMCY) 3010 Introduction to Pharmacy, a required class for first-year student pharmacists. Students will complete a survey prior to the class to assess their perceptions and interest regarding entrepreneurship.

Students must successfully complete a series of required and elective courses then apply to enter the program. Once accepted they will be eligible for the advanced pharmacy practice experiences (APPE) necessary to complete the requirements for the certificate program. Currently the student demand for the elective courses and special APPE far exceeds the course capacity. The certificate program will target students who demonstrate the commitment to entrepreneurship and allow them the opportunity to benefit from the full range of offerings. Any pharmacy student may take the elective; however, only those enrolled in the certificate program will be eligible for the APPE. This structure will allow for expansion of the APPE, which is currently limiting enrollment. No other certificate programs with this level of academic rigor have been identified in other pharmacy schools.

There is strong interest in entrepreneurship among current students. The PHRM 5250 course has consistently been filled to capacity every year. The demand for the Advanced Pharmacy Practice Experience (APPE) in entrepreneurship with the Small Business Development Center exceeds capacity. For example, in 2014 there were 20 student requests for 12 available experiences. Student interest in this area is not only seen through course enrollment, but also through student involvement in professional organizations. There are currently 56 student members in the UGA chapter of the National Community Pharmacists Association (NCPA), an organization that promotes independent community pharmacy. Based on current resources and demonstrated interest, a reasonable level of enrollment for this program is 12-18 students per year.

B. In addition, provide the following information:

To what extent will minority student enrollments be greater than, less than, or equivalent to the proportion of minority students in the total student body?

The program will be open to all students enrolled in the Doctor of Pharmacy degree program, including minority students. Faculty mentors will encourage diversity in the program, and minority students will be encouraged to apply. It is expected that the proportion of minority students may be less than total student body based on past course participation. A survey of students will assist in assessing entrepreneurial interests and potential application to the program.

4. *The design and curriculum of the program must be consistent with appropriate disciplinary standards and accepted practice.*

Provide the following information:

A. Present a detailed curriculum outline of the program listing specific course requirements (to include programs of study, course prefix, number, and title).

The curriculum for the Professional Certificate in Pharmacy Entrepreneurship has been designed to give students business and management skills and inspire innovation in all pharmacy settings. Student pharmacists who complete the program will not only be prepared to own their own business, but they will be able to incorporate entrepreneurial skills into any practice setting. Required courses such as Pharmacy Intercommunications, IPPE-Community Pharmacy, and Pharmacy Management introduce students to the communications, dispensing and management aspects of pharmacy. Topics include effective communication, pharmacy workflow, basic principles of accounting, diversity in the workplace, marketing, performance metrics, and risk management.

Electives PHRM 5130 and PHRM 5250 allow students to get a more in-depth experience in business management and pharmacy ownership as well as introduce them to the concepts of entrepreneurship, innovation and business or program development. PHRM 5130 Entrepreneurship Beyond Dispensing purposefully takes a student's focus away from traditional pharmacy constructs. Students are allowed to think creatively and to explore new ideas. Specifically, PharmD students perform scoping activities to monitor for trends so as to identify possible opportunities. Periodicals, industry articles and/or other literature will be scanned. Additionally, students are required to investigate two states to search for new innovations or approaches in pharmacy or healthcare. After trends and opportunities have been discussed, students are required to select an opportunity and must build a business case for an opportunity by assessing the demand and market, analyzing the technical requirements, and assessing the company requirements (management and funding). Students must validate their case throughout the development process, including concept formation, prototype development, trial and test marketing, and executing their opportunity with a market launch and sustainability plan.

PHRM 5250 Entrepreneurship for Pharmacists focuses on building business acumen for students interested in management and entrepreneurship. This course has five modules: Trends & Personal Goals, Financial Management (covering: Profit and Loss Statements, Balance Sheets, Cash Flow, Inventory Management, Wholesaler Management), Personnel Management & Leadership, Strategic Marketing, and Starting or Buying a Pharmacy Business. The course uses current case studies from independent pharmacies which students have to analyze and report. Unique to this class, pharmacy owners and specialists talk to students, and students are required to visit pharmacy owners or other entrepreneurial pharmacists at their businesses after which they must present their finding to the class. Furthermore, students must read a classic business book and share with the class core principles. Example readings include *Good to Great, E-Myth, Richest Man in Babylon, Who Moved My Cheese, How to Win Friends and Influence People, 7 Habits of Highly Effective People*.

In the final year of the program, students will participate in the Advanced Pharmacy Practice Experience (APPE- PHRM5904-PHRM5906). This program fosters entrepreneurial and business knowledge through the transformation of students' conceptual knowledge to experience. Instead of embracing a teacher-centered, theoretical approach to learning, this externship is more learner centered and task oriented toward "real-world" situations. Pharmacy students learn how to observe and implement core business principles through their one-on-one interactions with and observations of participating pharmacy businesses. During a typical rotation block (five weeks), each student spends 40+ hours a week working with three to four pharmacy businesses across the state. Using targeted analytic tools, students will work as consultants for pharmacy owners, performing a business analysis and making recommendations to improve the businesses and/or services. Overall, this externship

helps solidify the attainability of ownership and imposes the importance of innovation and leadership to a business.

In their final year students will complete an Advanced Pharmacy Practice Experience (APPE) in Research (PHRM 5907-PHRM5909). This time will primarily be used to complete their final individual project. For the final projects, students will be required to write a paper on how to develop and implement a new service or concept that they could feasibly implement as a pharmacist. This may be a clinical service, pharmacy business, innovative healthcare technology, or other idea. The topic must be declared and approved fall of the third year, and students will submit the final paper by the end of the Research APPE. At this time they will also submit presentation materials for the oral presentation of their project findings, which will occur prior to graduation.

Required Activities in Addition to Coursework:

1. **Th*inc* Week**:

Participating PharmD students will be required to attend Th*inc* Week at UGA. Th*inc* Week is a week-long celebration that includes lectures, workshops, panel discussions, competitions, and networking events that promise to engage, inspire, and build the confidence that will help take ideas from concepts to reality. Events will showcase entrepreneurial efforts by UGA faculty, students, and alumni and provide insights from nationally recognized entrepreneurship experts. While it is understood that some events may conflict with course work or labs, many offerings will be held during lunch and in the evenings. Students must present their experiences and what was learned at a debriefing meeting after Th*inc* Week.

2. **Third-year Group Project** (select 1)

NCPA Business Plan Competition: Participating students have the option to participate in this business competition. NCPA believes community pharmacies are "laboratories of innovation" for the profession. The competition is intended to help facilitate creativity and innovation in a business planning process that will ultimately result in more pharmacy entrepreneurs. The competition is the first national competition of its kind in the pharmacy profession and is named to honor two great champions of independent pharmacy, the late Neil Pruitt, Sr. (UGA alumnus) and the late H. Joseph Schutte.

Poster, podium, or written presentation of innovative concept: Students may select to present a poster or provide a podium presentation at a local, regional, or national meeting (e.g., Georgia Society of Health-System Pharmacists, American Association of Colleges of Pharmacy, or the National Outreach Scholarship Conference). Alternatively, students may write and publish an article in a pharmacy or healthcare publication. Instructors will guide students to appropriate venues or publications and may serve as co-presenters or co-authors.

3. **Individual Final Project**

Students will be required to evaluate the healthcare market and submit a final paper describing how to develop a new service or idea that they could feasibly implement as a pharmacist. The students must declare their topic of choice during the fall of their third year. The paper must be a minimum of ten pages, contain at least five references, and be submitted by the end of their fourth year APPE in Research. Students will also prepare an oral presentation for their topic, which will be presented to the group prior to graduation. The following topics must be addressed in the paper:

- Define the need for the service
- Complete an environmental needs assessment

- Assess the feasibility of implementation
- Describe the implementation process, including equipment, personnel, and training needed
- Propose a budget for the program
- Demonstrate consideration for other health care professionals (e.g., transitions of care, extent of collaboration)

Table 1: Courses, Credit Hours, and Year of Offering

Course	Credit Hours	Year 1	Year 2	Year 3	Year 4
PHRM 3900: Pharmacy Intercommunications	2	X			
PHRM 3950: Introductory Pharmacy Practice Experience I - Community Pharmacy	3	X			
PHRM 5130: Entrepreneurship Beyond Dispensing*	2		X	X	
PHRM 5250: Entrepreneurship for Pharmacists*	3		X	X	
PHRM 5650/7650: Pharmacy Care Management	2			X	
PHRM 5904-PHRM 5906: Advanced Pharmacy Practice Experience – Administration	5				X
PHRM 5907-PHRM 5909: Advanced Pharmacy Practice Experience – Research	5				X
Total:	**22**				

*May be taken in Year 2 or Year 3

Table 2: Timeline of Program Coursework and Activities

Year		Courses	Activities
P1	**Fall**	PHRM 3900: Pharmacy Intercommunications	Introduction to Program: Students introduced to entrepreneurial concepts and the certificate program in Introduction to Pharmacy course
	Spring	PHRM 3950: Introductory Pharmacy Practice Experience I - Community Pharmacy	Attend at least one Th*inc* Week event (may attend in first, second, or third year)
P2	**Fall**	PHRM 5130: Entrepreneurship Beyond Dispensing*	Application Submission: Students submit certificate program application and are notified of acceptance
	Spring	PHRM 5250: Entrepreneurship for Pharmacists*	Students meet with program mentors Attend at least one Th*inc* Week event (may attend in first, second, or third year)
P3	**Fall**	PHRM 5130: Entrepreneurship Beyond Dispensing*	Declare final individual project topic
	Spring	PHRM 5250: Entrepreneurship for Pharmacists* PHRM 5650/7650: Pharmacy Care Management	Complete group project (see list) Attend at least one Th*inc* Week event (may attend in first, second, or third year)

P4	**Fall**	PHRM 5904-PHRM 5906: Advanced Pharmacy Practice Experience – Administration	No activities other than those assigned during the experience are required for this semester
	Spring	PHRM 5907- PHRM 5909: Advanced Pharmacy Practice Experience – Research	Submit <u>final individual project</u>: minimum 10 page final paper for individual project Graduation Ceremony: oral presentation of project and receive certificate

Table 3: Course Descriptions

Course	Description
PHRM 3900: Pharmacy Intercommunications	This course allows students to develop counseling and communication skills needed in pharmacy practice. Upon completion of the course, the student should be able to: • Demonstrate the ability to provide interactive patient counseling • Discuss patient and disease factors that influence drug selection (e.g., allergy, disease state or medication history). • Describe the components of an effective patient/caregiver interview. • Identify the verbal and nonverbal components of a total communication.
PHRM 3950: Introductory Pharmacy Practice Experience I - Community Pharmacy	Introduces students to practice in a community pharmacy setting. By the end of the experience, students should be able to: • Demonstrate proficiency in processing new and refill prescriptions • Discuss methods for reimbursement • Develop verbal and written communication skills • Perform medication histories • Explain patient confidentiality processes • Demonstrate professionalism
PHRM 5130: Entrepreneurship Beyond Dispensing	This course focuses on identifying, assessing, and implementing pharmacy services beyond the traditional prescription dispensing. Upon completion of the course, the student should be able to: • Monitor for trends and identify business opportunities • Assess market and financial feasibility of project implementation • Describe how to implement a new business venture
PHRM 5250: Entrepreneurship for Pharmacists	This course exposes students to management and strategic issues in regard to owning and operating an independent pharmacy. Upon completion of the course, the student should be able to: • Review and analyze financial statements • Describe how to manage inventory, accounts payable, and third party plans • Describe how to effectively train and manage staff • Identify factors used to determine the value of a pharmacy • Evaluate pharmacy business models and retail mixes by return on investment
PHRM 5650/7650: Pharmacy Care Management	This course reviews management, organizational, accounting, and marketing topics for use in future pharmacy and health care system practice. Upon completion of the course, the student should be able to: • Gain skills in understanding important financial aspects of pharmacy management • Discuss management and organizational issues facing today's pharmacy

	practitioner and institutions • Critically examine organizational structures and related aspects to optimally benefit patients and society
PHRM 5904-PHRM 5906: Advanced Pharmacy Practice Experience – Administration	During this experience, students will have the opportunity to apply skills learned in PHRM 5130, PHRM 5250, and PHRM 5650. Students will visit pharmacies around the state of Georgia and analyze current pharmacy businesses under the supervision of a preceptor. By the end of the experience, students should be able to: • Review and analyze financial statements • Evaluate pharmacy business models and retail mixes by return on investment
PHRM 5907-PHRM 5909: Advanced Pharmacy Practice Experience – Research	During this experience, the students will research current healthcare trends and innovations. Upon completion of the course, the student should be able to: • Identify a relevant research topic and develop a corresponding idea or program • Perform a literature search related to the research topic • Present project findings by submitting a written report and giving an oral presentation

> B. Identify which aspects of the proposed curriculum already exist and which constitute new courses.

The curriculum for the Professional Certificate in Pharmacy Entrepreneurship consists of 22 credit hours. This includes both traditional courses and introductory and advanced pharmacy practice experiences (IPPEs and APPEs).   Existing APPE will be refined to include research in entrepreneurship [PHRM 5907, 5908, or 5909] where students will evaluate innovations and evolving pharmacy trends then present their findings in the form of a final project. All courses are approved as part of the current College of Pharmacy curriculum.

> C. Identify model programs, accepted disciplinary standards, and accepted curricular practices against which the proposed program could be judged. Evaluate the extent to which the proposed curriculum is consistent with these external points of reference and provide a rationale for significant inconsistencies and differences that may exist.

Certificate programs in Entrepreneurship exist within the University System, such as the Undergraduate Certificate in Entrepreneurship from the Terry College and the College of Family and Consumer Sciences; however, there are no academic certificates in entrepreneurship for professional degree programs. We have identified another professional certificate program [Veterinary Business Management] offered through the University of Florida College of Veterinary Medicine. Mr. Jeff Sanford was heavily involved in the development of their certificate program and still participates in its delivery and progression. The academic rigor of our proposed program distinguishes it from other available entrepreneurship certificate programs.

> D. If program accreditation is available, provide an analysis of the ability of the program to satisfy the curricular standards of such specialized accreditation.

There is currently no accreditation available for programs of this type.

> 5. *Faculty resources must be adequate to support an effective program.*

> A. Define the size, experience, and specializations of the full-time faculty needed to support an effective program. Identify the extent to which such faculty resources

currently exist at the institution, and what additions to the faculty will be needed to fully implement the program. Specify how many full-time faculty will provide direct instructional support to this program.

Faculty from the University of Georgia College of Pharmacy and the Small Business Development Center (SBDC) will utilize existing courses within the pharmacy curriculum to guide students through the process of becoming entrepreneurs. All courses in the proposed curriculum are currently available, as well as the required faculty.

Faculty resources for the certificate program are adequate to meet the current needs due to the fact that all courses are currently part of the pharmacy curriculum. Faculty resources have been allocated from the College of Pharmacy and Small Business Development Center to teach all required and elective courses. Seven full-time faculty will provide direct instructional support for the certificate program, including tenured, clinical, and public service faculty.

    B. In addition, for each faculty member directly involved in this program, list:

1) Name, rank, degrees, academic specialty, educational background
2) Special qualifications related to this program
3) Relevant professional and scholarly activity for past five years
4) Projected responsibility in this program and required adjustments in current assignments

Jeff Sanford, Senior Public Service Associate
B.B.A. in Economics, Mercer University
M.B.A. in Finance, Mercer University

Mr. Sanford is the Director of Entrepreneurial Studies in Athens and has a joint faculty position at the University of Georgia College Of Pharmacy where he teaches Entrepreneurship for Pharmacists (PHRM 5250) and Special Topics in Pharmacy (PHRM 5210), coordinates and advises for the NCPA Business Plan Competition, coordinates and advises Advanced Pharmacy Practice Experience (PHRM 5904), and consults with independent pharmacists across the nation. For consulting with independent pharmacies, he has developed pharmacy management tools including the Cost Analysis Model for MTM and Dispensing, Healthy Pharmacy Assessment Model (financial analysis), Strategic Marketing Pharmacy Assessments for Independent Pharmacies, and Pharmacy Valuation Model (buying or selling a pharmacy). Mr. Sanford also teaches Practice Management at the College of Veterinary Medicine and consults with veterinarians nationwide. Mr. Sanford's accomplishments include assisting clients with over $87 million in loans and grants and co-authoring the SBDC publication, *Mastering Business Loan Proposals and Starting a Business in Georgia*. Additionally, Mr. Sanford's peers selected him as the first recipient of The University of Georgia Business Outreach Services/SBDC Consultant of the Year Award in 1996. In 1998, The National Association of SBDCs recognized him as a "Star Performer," an award given to only ten of 4,000 SBDC consultants for meritorious service and impact. In 2003, the University of Georgia presented Mr. Sanford with the Walter B. Hill Award for Distinguished Achievement in Public Service and in 2014 he was awarded the Walter B. Hill Fellow.

Ashley Hannings, Public Service Assistant
Pharm.D., University of Georgia, 2010
PGY1 Pharmacy Practice Residency, McWhorter School of Pharmacy (Samford University)/Jefferson County Department of Health (JCDH)
PGY2 Community Pharmacy/Academia Residency, UNC Eshelman School of Pharmacy/Kerr Drug

Dr. Hannings works in the Division of Experience Programs at the UGA College of Pharmacy. She completed her PGY1 residency at the McWhorter School of Pharmacy, where she served as a clinician and researcher for the American Pharmacists Association (APhA) Foundation's Project IMPACT: Diabetes. During her PGY2 residency at the UNC Eshelman School of Pharmacy, she served as course co-coordinator for PHCY 434 Pharmacy Practice Management. She also practiced at Kerr Drug in Chapel Hill and served as site coordinator for their diabetes education program. In 2013, Dr. Hannings was selected as a Walmart Scholar by the American Association of Colleges of Pharmacy (AACP). She currently teaches in the second and third year introductory pharmacy practice experiences (IPPEs), including the Healthy Dawgs Wellness Program. Dr. Hannings is co-coordinator for PHRM 5250 Entrepreneurship for Pharmacists and will serve as primary preceptor for the Advanced Pharmacy Practice Experience (APPE) in Research.

Trina von Waldner, Senior Public Service Associate
B.S. in Pharmacy, University of Georgia, 1986
Pharm.D., University of Georgia, 2001

Trina von Waldner, PharmD, graduated from the University of Georgia College of Pharmacy with her Bachelor of Science in Pharmacy in 1986 and with her Doctor of Pharmacy in 2001. Dr. von Waldner has practiced pharmacy in large and small health systems, serving as director of pharmacy for 15 years. She also served as director of emergency preparedness and pharmacy for the Georgia Department of Public Health for 6 years. She joined the College of Pharmacy faculty in July of 2007 as the Director of Postgraduate Continuing Education and Outreach. As Director of Postgraduate Continuing Education and Outreach, von Waldner develops, presents, and/or co-sponsors nearly 200 continuing education activities each year, including live seminars and conferences, webinars and online programs, and practice-based certificate programs. She has presented multiple poster and podium presentations on continuing pharmacy education activity development and delivery. Her office of continuing education and outreach has developed and continues to maintain a learning management system for delivery of continuing education programs to over 10,000 users worldwide. Dr. von Waldner has published book chapters on effective customer service and journal articles on assessment of continuing pharmacy education needs. Dr. von Waldner serves as student advisor, preceptor, and mentor for dual degree and certificate programs at the college.

Matt Perri, Professor
B.S. in Pharmacy, Temple University, 1981
Ph.D. in Pharmaceutical Marketing, University of South Carolina, 1985

Matthew Perri III is a Professor of Pharmacy at the University of Georgia College of Pharmacy and a registered pharmacist. He received his Bachelor of Science in Pharmacy from Temple University in Philadelphia, Pennsylvania, in 1981 and the Doctor of Philosophy, with a major in Pharmaceutical Marketing, from the University of South Carolina in 1985. Dr. Perri has held an academic position at the University of Georgia College of Pharmacy since 1985, during which time he has served as a faculty member and administrator. Currently, he is a Professor in the Department of Clinical and Administrative Pharmacy, a member of the University's Graduate Faculty and Adjunct Faculty of Gerontology. Dr. Perri has been involved with various national and state service and consulting activities, including State of Georgia, Department of Community Health, Drug Utilization Review Board; the Georgia Senate Committee on Cost Controls in State Funded Health Plans; the National Consumers League workshop on direct to consumer prescription drug advertising; the US Department of Justice; state and national pharmacy organizations; pharmaceutical companies; chain and independent pharmacies; and long-term care facilities. Dr. Perri's research focuses on understanding how health information is processed to the point of decision making and the impact of these decisions on patient health and economic outcomes. Dr. Perri is the course coordinator for PHRM 3900 – Pharmacy Intercommunications.

Deana McEwen, Public Service Associate
Pharm.D., University of Georgia, 1999
Board Certified, Pharmacotherapy Specialist, 2012

Deanna W. McEwen, Pharm.D., graduated from the University of Georgia College of Pharmacy with her Doctor of Pharmacy degree in 1999. She joined Kroger Pharmacy at that time as a community pharmacist. McEwen served as the pharmacist-in-charge until September 2009 when she joined the faculty at the University of Georgia College of Pharmacy as 2nd Year Introductory Pharmacy Practice Experience Coordinator. She served as a 2010-2011 UGA Service Learning Fellow and in 2012 received the UGA Service-Learning Teaching Excellence Award. She is a member of the Georgia Pharmacy Association, Georgia Society of Health-System Pharmacists, American Association of Colleges of pharmacy and the American College of Clinical Pharmacists. Dr. McEwen is a certified immunization provider and conducts multiple flu shot clinics each fall for pharmacy students. Dr. McEwen is the course coordinator for PHRM 3950 – Community IPPE.

Rusty May, Clinical Professor
PharmD, University of Kentucky, 1981
Fellow, American Society of Health-System Pharmacists

J. Russell May, Pharm.D., FASHP, is a Clinical Professor in the Department of Clinical and Administrative Pharmacy at the University of Georgia College of Pharmacy. Prior to his move to academia full time in 2003, Dr. May was a drug information specialist and clinical manager in the Pharmacy Department at the Medical College of Georgia (MCG) Health System for 22 years, including serving as Director of Pharmacy from 1998 – 2003. Since graduating from the University of Kentucky Pharm.D. and Hospital Residency Programs in 1981, Dr. May has focused his practice in the areas of drug information and drug policy development. He currently serves on the Residency Advisory Council for the PGY-1 and three PGY-2 (critical care, oncology, and pediatrics) programs at Georgia Health Sciences University Health System (co-sponsored by the University of Georgia). In 2007, he was named Teacher of the Year at the University of Georgia College of Pharmacy. He is a Fellow of the American Society of Health-System Pharmacists and has served on the ASHP Executive Committee of the Section of Clinical Specialists and the Commission on Credentialing. He is a past president of the Georgia Society of Health System Pharmacists. Dr. May served as visiting professor at Misr International University in Cairo, Egypt, and assisted with the development of an onsite Drug Information Center. Dr. May serves as coordinator for PHRM 5650 Pharmacy Care Management.

Matt Lastinger, Public Service Assistant
B.S. in Agriculture, University of Georgia
M.B.A., University of Georgia
Medical Management Specialist

Mr. Lastinger works in the Georgia SBDC's Medical Practice Management Program consulting with independent pharmacists, veterinarians, and human medicine professionals. Additionally, he assists in the continuing education and student education efforts of the Medical Practice Management Program. He has consulted with numerous clients across the state covering a wide range of specialties and has also taken part in several student rotations with the UGA Pharmacy School and the College of Veterinary Medicine. Mr. Lastinger began his career working with a Fortune 100 company in sales and operations management and has also started a small business in agri-tourism. Mr. Lastinger serves as co-instructor in PHRM 5904, 5905, 5906, and 5907 – APPE.

C. Where it is deemed necessary to add faculty in order to fully develop the program give the desired qualifications of the persons to be added.

No other faculty needs have been identified.

6. *Library, computer, and other instructional resources must be sufficient to adequately support the program.*

A. Describe the available library resources for this program and the degree to which they are adequate to support an effective program. Identify the ways and the extent to which library resources need to be improved to adequately support this program.

Currently available library resources are adequate for this program.

B. Likewise, document the extent to which there is sufficient computer equipment, instructional equipment, laboratory equipment, research support resources, etc. available to adequately support this program. Specify improvements needed in these support areas.

Based on projected growth of the certificate program, additional equipment, such as a smart board or work room board, may be necessary.

7. *Physical facilities necessary to fully implement the program must be available.*

Describe the building, classroom, laboratory, and office space that will be available for this program and evaluate their adequacy to fully support an effective program. Plans for allocating, remodeling, or acquiring additional space to support the program's full implementation of the program should also be identified.

Physical facilities within the College of Pharmacy are adequate for the current courses offered in the curriculum. Based on projected growth of the certificate program, available space at the Small Business Development Center may be used for the program.

8. *The expense to the institution (including personnel, operating, equipment, facilities, library, etc.) required to fully implement the program must be identified.*

A. Detailed funding to initiate the program and subsequent annual additions required to fully implement the program are needed below. Estimates should be based upon funding needed to develop an effective and successful program and not upon the minimal investment required to mount and sustain a potentially marginal program.

Baseline costs are budgeted and fully funded to implement the program. The goal of the program will be to increase enrollment from 12 to 18, which will result in additional faculty support by the College of Pharmacy, increased operating costs, and capital expenses to outfit a currently available classroom.

Cost	Year 1	Year 2	Year 3
Personnel	0	15,850	16,167
Graduate Asst.	0	1,663	1,663
Operating Costs	0	6,624	6,624
Capital Outlays	0	4,452	0
Library Acquisitions	0	0	0
TOTAL	0	28,589	24,454

B. Indicate the extent of student support (fellowships, assistantships, scholarships, etc.) available for this program, and evaluate the adequacy of this support. Assistantships funded from institutional (as opposed to sponsored) funds should be included in this funding analysis as well.

One graduate assistant in the SBDC will spend 35% of their time for the increased enrollment in the advanced pharmacy practice experiences.

9. *Commitments of financial support needed to initiate and fully develop the program must be secured.*

A. Identify the sources of additional funds needed to support the program and the probability of their availability.

Current funding through the College of Pharmacy and the Small Business Development Center will support the full implementation of the program.

A potential source of funding has been identified for the program through a public-private partnership with independent pharmacies in the State of Georgia. Mr. Sanford works closely with pharmacy owners throughout the state who have expressed an interest in supporting the advancement of entrepreneurial studies in the pharmacy curriculum. Additionally, the College of Pharmacy Office of External Affairs is working with community pharmacies and state associations to secure funding in support of this effort.

B. It is particularly important to include in this response the long-range plans for additional or expanded facilities necessary to support an effective program. Evaluate the timing and likelihood of such capital funding.

Long-range plans for the program include establishing a foundation account that will provide ongoing support of the certificate program as well as scholarship funding and academic support for the College.

10. *Provisions must be made for appropriate administration of the program within the institution and for the admission to and retention of students in the program in keeping with accepted practice.*

Describe and evaluate the structure for the administration of the program. Explain the degree to which that structure is in keeping with good practice and accepted standards. Similarly, explain how and by what criteria students will be admitted to and retained in the program, and how these procedures are consistent with accepted standards for effective and successful programs.

This program will be administered by the Associate Dean for Instruction in the College of Pharmacy. This structure is in line with other certificates in the College and at the University level. Students enrolled in the Doctor of Pharmacy degree program and in good standing will be eligible to apply. College-approved academic standards will apply to the certificate program in the same manner as the Doctor of Pharmacy curriculum. Students must declare their interest and apply prior to the completion of PHRM 5250 – Entrepreneurship for Pharmacists. Admission to the certificate program must occur no later than Spring Semester of the 2nd year. Only students who commit to the program prior to beginning their 3rd year will qualify for the required advanced pharmacy practice experience. Due to interest in entrepreneurship and the ever-changing environment in pharmacy combined with the program structure, we do not anticipate any issues with student retention.