

**New Program Proposal  
Bachelor of Science in Pharmaceutical Sciences  
University of South Carolina**

**Summary**

The University of South Carolina requests approval to offer a program leading to the Bachelor of Science in Pharmaceutical Sciences to be implemented in Fall 2015. The proposed program is to be offered through traditional and online instruction. The following chart outlines the stages for approval of the proposal; the Advisory Committee on Academic Programs (ACAP) voted to recommend approval of the proposal. The full program proposal is attached.

<b>Stages of Consideration</b>	<b>Date</b>	<b>Comments</b>
Program Planning Summary received and posted for comment	Not Applicable	Not Applicable
Program Proposal Received	9/15/14	Not Applicable
ACAP Consideration	10/16/14	ACAP members agreed there was a need for and expressed support for the proposed program.
Comments and suggestions from CHE staff sent to the institution	10/28/14	Staff requested that the proposal be revised to make the degree requirements clearer, include course titles in the Curriculum section, and provide additional information about programmatic assessment.
Revised Program Proposal Received	12/2/2014	The revised proposal satisfactorily addressed all of the requested revisions.

**Recommendation**

The staff recommends that the Committee on Academic Affairs and Licensing commend favorably to the Commission the program leading to the Bachelor of Science in Pharmaceutical Sciences to be implemented in Fall 2015.

**South Carolina College of Pharmacy**

**University of South Carolina Campus**

**Proposal for**

**Bachelor of Science in Pharmaceutical Sciences**

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**Harris Pastides, President, University of South Carolina**

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**Date**

**College Contacts**

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## **2. Classification**

Program Title:	Bachelor of Science in Pharmaceutical Sciences
Concentrations, options, and tracks:	None
Academic Unit:	College of Pharmacy
Designation, type, and level of degree:	New four-year Undergraduate Baccalaureate Program
Proposed Implementation:	Fall 2015
CIP Code:	51.2099
Site:	University of South Carolina, Columbia. SC
Program qualifies for supplemental Palmetto Fellows Scholarship and Life Scholarship awards:	Yes
Delivery Mode:	75% traditional and 25% distance. During the first two years of the program, students will take classes on the USC Columbia campus. During the last two years of the program, some courses are taught via “live” streaming video from the Medical University of South Carolina Campus of the South Carolina College of Pharmacy.
Area of Certification:	None for this program; however program graduates may go on to complete the Doctor of Pharmacy program and pass the North American Pharmacists Licensure Examination (NAPLEX) and Multistate Pharmacy Jurisprudence Examination (MPJE), enabling them to practice pharmacy in the state

## **3. Institutional Approval**

Approved by the Office of the Provost on August 15, 2014

Approved by the Office of the President on August 18, 2014

## **4. Purpose**

- a) The B.S. in Pharmaceutical Sciences degree program will benefit both students and USC. The students have the ability to earn an undergraduate degree while preparing for a career in

pharmacy and the institution accurately reflects student progression, attrition, and graduation rates.

- b)** The addition of the B.S. in Pharmaceutical Studies will meet the following three objectives:

Count students in institutional graduation rates - students interested in pursuing a career in the profession of pharmacy are “counted” as dropouts by USC when they leave the undergraduate program to enter pharmacy school. This reflects poorly on USC even though the institution offered a rigorous academic program and the student successfully gained admission to pharmacy school. Since USC can provide both the undergraduate courses and professional program to these students, conferring a BS degree will allow these students to be rightfully counted as graduates and not drop-outs.

Enhance post-graduate opportunities - many post-graduate programs (Ph.D., M.D., D.D.S, J.D., etc.) require an undergraduate degree, so students choosing to pursue this type of a degree program do not have the credentials to gain admission until they have graduated with an undergraduate degree.

Provide employment opportunities for career changers – for students who change their career paths while in pharmacy school, they will be able to pursue other employment opportunities such as a pharmacy technician, healthcare worker, pharmaceutical industry, research assistant, regulatory affairs, etc.

## **5. Justification**

- a)** The majority of students who earn the B.S. in Pharmaceutical Sciences will earn the Doctor of Pharmacy (Pharm.D.) after two additional years in the professional program. For students who earn the Pharm.D. and pursue a career in pharmacy after graduation, the B.S. degree will have no bearing on their job prospects since the Pharm.D. is now required to practice pharmacy in the United States. The job projections for students who earn the Pharm.D. are promising. According to the U.S. Bureau of Labor Statistics, the pharmacy profession is expected to grow by 14% annually. The historical national average for job placement of pharmacy students immediately upon graduation ranges between 55% to 65%. Seventy-one (71) out of the 114 students who graduated from the USC Campus of the SCCP in May 2013 had obtained jobs prior to commencement (62% job placement rate). Twenty Six (26) students continued their post-graduate training by successfully obtaining a residency. Seventeen (17) students did not have a job or residency upon graduation. To the best of our knowledge, most of these students obtained job placements within six months after graduation.

Based on past experiences with students who have left the professional program at the conclusion of the second year, it is predicted that most B.S. in Pharmaceutical Sciences students who forgo obtaining the Pharm.D. will enroll into graduate and professional degree programs that require at least a baccalaureate degree. Post-baccalaureate options for B.S. in Pharmaceutical Sciences graduates include degrees in medicine, physical therapy, public health, dentistry, veterinarian science, law, education, business, etc. Other post-baccalaureate options include graduate study in pharmaceutical, biomedical, or basic sciences. Over the past several years, a few students (<5) have enrolled in medical school prior to completing the Pharm.D. program.

The B.S. in Pharmaceutical Sciences graduates who decide not to finish a professional or graduate program will have an advantage over other Bachelor of Science degree holders applying for pharmaceutical-related jobs. After completing two years of the Pharm.D. program, the B.S. in Pharmaceutical Sciences graduates will be uniquely qualified to work in pharmaceutical sales, pharmaceutical research, drug testing, drug marketing, and drug regulation.

Other career options for B.S. in Pharmaceutical Sciences graduates who do not obtain a graduate or professional degree include entry-level careers in post-graduate research, community health, diet and nutrition, non-profit health assessment (Peace Corps or AmeriCorps), environmental protection, air quality control, consumer safety, health insurance, and health assessments in industry. Graduates will have the option of pursuing entry level health careers such as a pharmacy technician, medical assistant, medical transcriptionist, massage therapist, health technologist, physical therapist, respiratory therapist, etc. These fields may require additional training in a technical or community college.

According to the U.S. Bureau of Labor Statistics, the job outlook for several of these career areas such as a pharmacy technician (20%), health educator (21%), health information technician (22%), health records technician (22%), and health environmental scientist (15%) are at least 3 percentage points higher than the national average for all occupations.

According to the most recent *South Carolina Economic Indicator Report* conducted in 2010, the average 2006-2016 job growth rate of Healthcare Support jobs (comprised mainly of health professions jobs that do not require a post-baccalaureate degree) is 27% versus 10.9% for all occupations in South Carolina. According to the SC Works *Occupational Employment and Future Employment* table, the annual percentage growth rates for several of the health support jobs that the B.S. in Pharmaceutical Sciences students could potentially obtain is 1.9% (pharmacy technician), 1.6% (health educator), 1.7% (respiratory therapist), 1.6% (health technologist), 2.2% (community health worker), 1.8% (environmental science and protection technician) and 1.7% (dietician/nutritionist) vs. 1.1% for all occupations in South Carolina.

- b)** USC's primary mission is the education of the state's citizens through teaching, research, creative activity, and community engagement. The addition of the B.S. in Pharmaceutical Sciences will fulfill this mission through undergraduate and professional level instruction, research opportunities in clinical pharmacy and biomedical sciences, creative opportunities in pharmacy innovation, and for those students who earn the Doctor of Pharmacy after obtaining the baccalaureate degree, community engagement through providing advanced level pharmaceutical care to meet the medication needs of the citizenry of the South Carolina and the nation.
- c)** The program will not impact existing programs at the University of South Carolina (USC); it will formalize into a degree program instruction that is already taking place. The academic departments that offer the pre-requisite and general education courses during the first two years of the program will continue to do so, and South Carolina College of Pharmacy (SCCP) faculty will instruct all of the professional courses taken in the last two years as they have been doing.

**d) The list of similar programs in the state includes:**

Bachelor of Science in Pharmaceutical Sciences at Francis Marion University,  
Bachelor of Science in Pre-professional Studies at Clemson University,  
Bachelor of Science in Biochemistry at Claflin University,  
Degree Plus Pre-Pharmacy Path (Bachelor of Science in Chemistry or Biology) at  
Presbyterian College.

- e) With regard to similarities and differences between the above-listed programs and our own, Claflin University, Francis Marion University, and Clemson University have established MOU agreements with the South Carolina College of Pharmacy (SCCP) and other colleges of pharmacy where they offer a bachelor of science degree that combines undergraduate coursework and professional coursework in a Doctor of Pharmacy (Pharm.D.) program. In these bachelor degree programs, students must take a minimum of 90 hours or three years of undergraduate coursework at the degree granting institution.**

Presbyterian College does not have a MOU with the SCCP, but it also has a program that combines undergraduate coursework and coursework in their Doctor of Pharmacy program.

There are several differences the B.S. in Pharmaceutical Sciences from USC will have in relation to the programs at Claflin, Francis Marion, and Clemson University. First, the proposed USC-Columbia program will allow the student to complete both the B.S. and Pharm.D. degrees within one institution (USC). Second, the USC program only requires 66 hours (approximately 2 years) of undergraduate coursework, whereas the other institutions require 90 hours (approximately 3 years) of undergraduate coursework prior to entering the professional Pharm.D. program where the remaining two years of the B.S. in Pharmaceutical Sciences are completed. ~~to earn a bachelor's degree.~~ Third, USC is the only institution in South Carolina that teaches the entire pharmaceutical sciences curriculum.

## **6. Admission Criteria**

Prospective freshmen entering the B.S. in Pharmaceutical Sciences program must meet the general admissions criteria for acceptance as outlined by the Office of Undergraduate Admissions at the University of South Carolina – Columbia. Prospective transfer students must earn a minimum GPA of a 3.0 upon completion of twelve college-credit courses.

Admission into the professional component of the degree program is based on the completion of a national and supplemental application, cumulative and pre-requisite GPA, the Pharmacy College Admissions Test (PCAT), an interview, and letters of recommendation.

## 7. Enrollment

### a) Projected Total Enrollment

PROJECTED TOTAL ENROLLMENT						
YEAR	FALL		SPRING		SUMMER	
	Headcount	Credit Hours	Headcount	Credit Hours	Headcount	Credit Hours
2015– 16	227(a)	3405	215(b)	3225	70(c)	404
2016 – 17	182(d)	2730	164(e)	2460	12(f)	48
2017 – 18	69(g)	1173	69	1104	69(h)	276
2018– 19	66(i)	990	66	924	66	264
2019 – 20	227(a)	3405	215(b)	3225	70(c)	404

### b) Discussion of how these estimate were made

(a) Includes approximately 227 new students (including new freshmen/transfers from the summer semester, new transfers, and readmits).

**Note:** the average three-year total enrollment for new and continuing pre-professional students (254 continuing students) has been 481 total students.

(b) First year spring semester total of 215 (227 students minus an average of 12 new students from the summer/fall semesters who will change into another degree program between the fall and spring semesters of the first year).

(c) Most students take a 4 hour lab course.

(d) Second year fall semester total of 182 (215 students minus 33 students who change into another degree program).

(e) Second year spring semester total of 164 (182 minus 18 students who change into another degree program).

(f) Approximate number of students accepted into the professional program who have one or more pre-requisites to complete before professional program enrollment.

(g) First semester of the third year or first professional year total of 69 (164 students minus 51 pre-professional applicants who will apply, but who will not be accepted into the professional program, 7 students who enroll into the professional program at MUSC, and 37 students who do not apply into the professional program and change into another degree program).

**Note:** The 51 students not accepted into the professional program will typically change into another degree program that contains the majority of coursework from the first two years of the B.S. in Pharmaceutical Sciences program such as biological sciences, chemistry, biochemistry, public health (B.S.), exercise science (B.S.), and biomedical engineering. These students may reapply to enter the professional program in their senior year or pursue a different baccalaureate degree. An average of 7 -10 re-applicants are accepted into the professional program each year. After the conclusion of the second professional year, these students are eligible for the B.S. in Pharmaceutical Sciences if they do not have a prior degree and meet all requirements.

(h) Professional students will take a 4-hour rotation between the first and second years (third and fourth years in B.S. degree) in the summer.

(i) Number of students who will graduate with a B.S. in Pharmaceutical Sciences minus the approximate number of students who will not persist between the first and second professional years.

(j) The next cohort.

**c) Discussion of the Number of New Students Projected to Enroll in the Program.**

Based on the average enrollment of pre-pharmacy students between Fall 2011 and Fall 2013, approximately 227 new freshmen and transfer students will enroll in the B.S. in Pharmaceutical Sciences program.

Approximately 30 students from other degree programs at USC will transfer into the program each pre-professional year. Approximately 69 students will be accepted into the professional program at the USC Campus of the SCCP. Approximately 66 students will earn the B.S. in Pharmaceutical Sciences at the end of the second professional year. Transfers from other colleges of pharmacy are rare. The USC Campus of the SCCP receives about one to two transfers from the MUSC Campus of the SCCP or from other schools of pharmacy each year. However, those students must meet all pre-professional and professional requirements to earn the B.S. degree.

**8. Curriculum**  
**a) Sample Curriculum**

<b>Pre-Professional Curriculum (66 Hours)</b>		
<b>Year One – Fall Semester</b>		
<u>Course</u>	<u>Credit Hours</u>	<u>Carolina Core Component</u>
ENGL 101 <i>Critical Reading &amp; Comprehension</i>	3	CMW <i>Effective, Engaged, and Persuasive Communication: Written Component</i>
MATH 122 <i>Calculus for Business Administration &amp; Social Sciences OR MATH 141 Calculus I</i>	3	ARP <i>Analytical Reasoning and Problem-Solving</i>
BIOL 101/101L <i>Principles of Biology I &amp; Lab</i>	4	SCI <i>Scientific Literacy</i>
CHEM 111/111L <i>General Chemistry I &amp; Lab</i>	4	SCI
UNIV 101 <i>The Student in the University</i>	3	
Total = 17 Hours		
<b>Year One – Spring Semester</b>		
ENGL 102 <i>Rhetoric &amp; Composition</i>	3	CMW + INF <i>Information Literacy</i>
STAT 201 <i>Elementary Statistics OR STAT205 Elementary Statistics for Biological and Life Sciences</i>	3	ARP
BIOL 102/102L <i>Principles of Biology II &amp; Lab</i>	4	
CHEM 112/112L <i>General Chemistry II &amp; Lab</i>	4	
Any AIU <i>Aesthetic &amp; Interpretive Understanding</i> option	3	AIU
Total = 17 Hours		
<b>Year Two – Fall Semester</b>		
BIOL 243 <i>Human Anatomy &amp; Physiology I</i>	3	
CHEM 333 <i>Organic Chemistry I</i> & CHEM 331L <i>Organic Lab I</i>	4	
PHYS 201 <i>General Physics I</i>	3	
ECON 224 <i>Introduction to Economics</i> ORECON 221 <i>Principles of Microeconomics,</i> OR ECON 222 <i>Principles of Macroeconomics</i>	3	

PSYC 101	3	<i>GSS Global Citizenship and Multicultural Understanding: Social Science</i>
Total = 16 Hours		
<b>Year Two – Spring Semester</b>		
BIOL 244 <i>Human Anatomy &amp; Physiology II</i>	3	
CHEM 334 <i>Organic Chemistry II &amp; 332L Essentials of Organic Lab II</i>	4	
BIOL 250 <i>Microbiology</i>	3	
SAEL 200 <i>Social Advocacy &amp; Social Life</i>	3	<i>CMS Effective, Engaged and Persuasive Communication: Spoken Component + VSR Values, Ethics, and Social Responsibility</i>
Any GHS option <i>Global Citizenship and Multicultural Understanding: Historical Thinking</i>	3	GHS
Total = 16 Hours		
GFL requirement met with a score of 2 or higher on foreign language placement test		
<b>Professional Curriculum (62 Hours)</b>		
<b>Year Three – Fall Semester</b>		
SCCP 602 <i>Foundations of Pathophysiology &amp; Pharmacology I</i>	2	
SCCP 607 <i>Dosage Forms and Drug Delivery Systems</i>	4	
SCCP 615 <i>Pharmaceutical Biochemistry</i>	3	
SCCP 621 <i>Foundations of Pharmaceutical Chemistry &amp; Pharmacogenomics I</i>	3	
SCCP 650 <i>Introduction to Pharmacy Practice</i>	2	
SCCP 656 <i>Pharmacy Calculations</i>	1	
SCCP 657 <i>Medical Terminology</i>	1	
SCCP 680 <i>Intro. to Drug Information</i>	1	
Total = 17 Hours		
<b>Year Three – Spring Semester</b>		
SCCP 603 <i>Foundations of Pathophysiology &amp; Pharmacology II</i>	3	
SCCP 610 <i>Microbiology &amp; Immunology</i>	4	

SCCP 616 <i>Pharmaceutical Biotechnology</i>	2	
SCCP 622 <i>Foundations of Pharmaceutical Chemistry &amp; Pharmacogenomics II</i>	4	
SCCP 690 (IP 710) <i>Transforming Health Care</i>	2	
SCCP 661 <i>Clinical Applications II</i>	1	Integrative Course that meets INF, CMS, and SCI learning outcomes of the Carolina Core
Total = 16 Hours		
<b>Year Four – Fall Semester</b>		
SCCP 710 <i>Biopharmaceutics and Pharmacokinetics</i>	3	
SCCP 722 <i>Pathophysiology &amp; Pharmacology I</i>	3	
SCCP 750 <i>Self-Care and Complementary Med.</i>	4	
SCCP 760 <i>Clinical Applications III</i>	1	
SCCP 772 <i>Pharmacotherapy I</i>	4	
Total = 15 Hours		
<b>Year Four – Spring Semester</b>		
SCCP 723 <i>Pathophysiology &amp; Pharmacology II</i>	3	
SCCP 761 <i>Clinical Applications IV</i>	1	
SCCP 773 <i>Pharmacotherapy II</i>	4	
SCCP 780 <i>Outcomes Design and Assessment</i>	3	
SCCP 890 <i>Clinical Pharmacokinetics</i>	3	
Total = 14 Hours		

- b)** No new courses are currently projected at the pre-professional and professional levels. Programming changes for the first two years in the curriculum that are approved through the SCCP Curriculum Committee will also be approved through USC's Faculty Senate and all institutional bodies involved in the approval of course curriculum changes. Programming changes for the last two years in the curriculum will be approved through the SCCP Curriculum Committee

## 9. Assessment

- a)** During the last two years of the curriculum, students complete the following assessments related to the program learning outcomes:

- Review and assess case study exercises to demonstrate student ability to understand patient medical situations and provide appropriate drug therapy monitoring.

- Complete exercises demonstrating ability to work and communicate in an interprofessional environment.
- Demonstrate basic competencies in sterile and non-sterile compounding by completion of practice exams and media fill exercises.
- Complete competency exams demonstrating familiarity with the top 300 oral/topical drug products and top 100 IV products.
- Complete case study, communication, and video exercises demonstrating knowledge in self-care, complementary, and preventive medicine.
- Counsel standardized patients on the appropriate use of medications.
- Successful completion of OSCE/OSLE Evaluations/Analytical Checklists; 70% performance or remediation required.

- b)** The following program goals and student learning outcomes are assessed during the third and fourth years of the program:

**Goal 1:** Provide pharmaceutical care in cooperation with patients, prescribers, and other members of an inter-professional health care team based upon sound therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social, economic, and professional issues, emerging technologies, and evolving biomedical, socio-behavioral, and clinical sciences that may impact therapeutic outcomes

**Outcome 1:**

Students will acquire and be able to apply knowledge in the biological, social, pharmaceutical, and clinical sciences as a foundation for pharmaceutical care (including but not limited to the following courses: anatomy, physiology, biochemistry, pathophysiology, immunology, microbiology, pharmaceuticals, biopharmaceutics, molecular biology, pharmaceutical calculations, pharmacokinetics, medicinal chemistry, pharmacology, drug information, pharmacogenomics, pharmacoeconomics, outcomes, statistics, pharmacy law, ethics, pharmacy practice, and therapeutics).

**Assessment**

- Academic performance based on course grades. 95% or above pass rate for required courses (final course grades 70 or above).
- Review and assess case student exercises to demonstrate student ability to understand patient medical situations and provide appropriate drug therapy monitoring.
- Complete competency exams demonstrating familiarity with the top 300 oral/topical drug products and top 100 IV products.

**Outcome 2:**

Students will develop the skills and knowledge to provide patient-centered care.

**Assessment**

- Academic performance based on course grades: 95% or above pass rate (final course grades 70 or above) for courses with major emphasis on patient-centered care
- Successful completion of OSCE/OSLE Evaluations/Analytical Checklists; 70% performance or remediation required.
- Ability to effectively counsel standardized patients on the appropriate use of medications.

**Outcome 3:**

Students will acquire the knowledge to provide population-based care.

**Assessment:**

- Academic performance based on course grades: 95% or above pass rate for courses with major emphasis on providing population-based care.
- Successful completion of OSCE/OSLE Evaluations/Analytical Checklists; 70% performance or remediation required.
- Review and assess case study exercises to demonstrate student ability to understand patient medical situations and provide appropriate drug therapy monitoring.

**Goal 2:**

Graduates will manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.

**Outcome 1:**

Students will develop the knowledge and skills to manage human, physical, medical, informational, and technological resources.

**Assessment:**

- Academic performance based on course grades: 95% or above pass rate for courses with major emphasis on management issues in patient care.
- Successful completion of online exercises demonstrating ability in drug information retrieval and literature searches.

**Outcome 2:**

Students will master appropriate principles to manage medication use systems.

**Assessment:**

- Academic performance based on course grades: 95% or above pass rate for courses with major emphasis on providing population-based care.
- Demonstrate basic competencies in sterile and non-sterile compounding by completion of practice exams and media fill exercises.

**Goal 3:**

Promote health improvement, self-care (including but not limited to nonprescription, complementary and alternative medicines), wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an inter-professional team of health care providers

**Outcome 1:**

Graduates will develop skills that will allow them to promote health improvement, self-care (including but not limited to nonprescription, complementary and alternative medicines), wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an interprofessional team of health care providers.

**Assessment:**

- Academic performance based on course grades: 95% or above pass rate for courses with major emphasis on health promotion and interprofessional practice.
- Complete case study, communication, and video exercises demonstrating knowledge and ability in self-care, complementary, and preventive medicine.
- Completion of assigned interprofessional exercises with students from medicine, nursing, public health, and social work; exercises demonstrate ability to work and communicate in an interprofessional environment.

- c) Program changes based on student performance assessment data are evaluated upon completion of the Doctor of Pharmacy degree and passing scores on the NAPLEX and MPJE two years after of the completion of the B.S. in Pharmaceutical Sciences. These data is evaluated by the SCCP Assessment Committee and the SCCP Curriculum Committee. Recommendations for changes in the academic program are proposed by these Committees, and are brought to the faculty for vote and then implementation, if approved.

**10. Faculty**

**a) Faculty List Table**

Table B– Faculty List

<b>List Staff by Rank (e.g. Professor #1, Professor #2, Associate Professor #1, etc.)</b>	<b>Highest Degree Earned</b>	<b>Field of Study</b>	<b>Teaching in Field (Yes/No)</b>
Professor #1	PhD	Outcomes Sciences/Medication Adherence	Y
Associate #1 Professor	PhD	Drug Discovery/Biomedical Sciences	Y
Associate Professor #2	PhD	Drug Discovery/Biomedical Sciences	Y
Associate Professor #3	PhD	Drug Discovery/Biomedical Sciences	Y
Associate Professor #4	PhD	Drug Discovery/Biomedical Sciences	Y

<b>List Staff by Rank (e.g. Professor #1, Professor #2, Associate Professor #1, etc.)</b>	<b>Highest Degree Earned</b>	<b>Field of Study</b>	<b>Teaching in Field (Yes/No)</b>
Associate Professor #5	PhD	Drug Discovery/Biomedical Sciences	Y
Associate Professor #6	PhD	Drug Discovery/Biomedical Sciences	Y
Associate Professor #7	PhD	Drug Discovery/Biomedical Sciences	Y
Associate Professor #8	Pharm.D.	Clinical Pharmacy	Y
Associate Professor #9	Pharm.D.	Clinical Pharmacy	Y
Assistant Professor #1	PhD	Drug Discovery/Biomedical Sciences	Y
Assistant Professor#2	Pharm.D.	Clinical Pharmacy	Y
Assistant Professor#3	Pharm.D.	Clinical Pharmacy	Y
Assistant Professor#4	Pharm.D.	Clinical Pharmacy	Y
Assistant Professor#5	Pharm.D.	Clinical Pharmacy	Y
Assistant Professor#6	Pharm.D.	Clinical Pharmacy	Y

- b)** Since the faculty and staff at both the pre-professional and professional levels already provide the necessary instruction and advisement to facilitate the program, no new hires are expected for students pursuing the B.S. in Pharmaceutical Sciences.

- c)** The addition of the B.S. in Pharmaceutical Sciences will require the addition of one assistant dean who will provide 50% effort to direct and oversee the BS in Pharmaceutical Sciences degree program. The Assistant Dean will be appointed from the existing faculty of the College of Pharmacy.
- d)** No new changes to the institutional plan for faculty development are expected with approval of this program, since the curriculum has been in place.
- e)** Full-time equivalent (FTE) faculty/staff include those members of the instruction/research staff who are employed full time and whose major regular assignment is instruction, including those with released time for research. Also, includes full-time [faculty](#) for whom it is not possible to differentiate between teaching, research and public service because each of these functions is an integral component of his/her regular assignment.

**f) Unit Administration, Faculty, and Staff Support table (Table C)**

<b>UNIT ADMINISTRATION, FACULTY, AND STAFF SUPPORT</b>						
<b>YEAR</b>	<b>NEW</b>		<b>EXISTING</b>		<b>TOTAL</b>	
	Headcount	FTE	Headcount	FTE	Headcount	FTE
<b>Administration</b>						
2015– 16	0	0	1	0.5	1	0.5
2016 – 17	0	0	1	0.5	1	0.5
2017 – 18	0	0	1	0.5	1	0.5
2018– 19	0	0	1	0.5	1	0.5
2019 – 20	0	0	1	0.5	1	0.5
<b>Faculty</b>						
2015 – 16	0	0	16	4	16	4
2016 – 17	0	0	16	4	16	4
2017 – 18	0	0	16	4	16	4
2018 – 19	0	0	16	4	16	4
2019 – 20	0	0	16	4	16	4
<b>Staff</b>						
2015 – 16	0	0	4	3	4	3
2016 – 17	0	0	4	3	4	3
2017 – 18	0	0	4	3	4	3
2018 – 19	0	0	4	3	4	3
2019 – 20	0	0	4	3	4	3

## **11. Physical Plant**

- a) The existing physical plant is adequate to provide physical accommodations for the B.S. in Pharmaceutical Sciences since the physical plant currently accommodates pre-professional and professional coursework students will take in the curriculum.
- b) Since the physical plant requirements needed to administer both the pre-professional and professional components of the B.S. in Pharmaceutical Sciences currently exists, no additions to the existing physical plant are needed.

## **12. Equipment**

Since the equipment needed to administer the B.S. in Pharmaceutical Sciences at the pre-professional and professional levels of the program currently exists, no new major equipment will be needed for the program.

## **13. Library Resources**

- a) The B.S. in Pharmaceutical Sciences will not require additional library resources. During the pre-professional component of the program, students will have the same access to library resources as undergraduates in other programs at USC. During the professional component of the B.S. degree, students will have access to a joint electronic database of online periodicals, journals, clinical collections, case studies, citation indexes, etc. between the USC and MUSC Campuses of the SCCP.

Due to continuous innovation and changing practices and standards in the pharmacy field, printed library resources are not commonly used by students in the College. Library holdings are all online on the joint USC and MUSC database for the SCCP.

- b) The B.S. in Pharmaceutical Sciences will not require the purchase of independent acquisitions. Since the joint electronic database consists of online sources that do not require a contract or subscription, the cost to maintain the database is nominal.
- c) Electronic resources are commonly shared between professional students in the USC and MUSC Campuses of the SCCP. Students in the professional component of the B.S. in Pharmaceutical Sciences may utilize PASCAL access resources in MUSC's electronic catalog.

## **14. Accreditation, Approval, Licensure, or Certification**

- a) The professional component of the B.S. in Pharmaceutical Sciences is subject to accreditation standards and guidelines of the Accreditation Council for Pharmacy Education (ACPE). The South Carolina College of Pharmacy is fully accredited until 2017. ACPE requires periodic monitoring and updates for the professional program within the multi-year accreditation cycle. The next ACPE self-study process for accreditation review will occur during 2016.

Accreditation approval from the ACPE is not required for the pre-professional component of the B.S. in Pharmaceutical Sciences since the ACPE gives colleges of pharmacy the authority to independently select pre-professional coursework as long as those courses are similar to the pre-professional curriculums in peer institutions. Additional accreditation is not

required for the professional component of the B.S. degree since the Pharm.D. is already accredited by the ACPE.

- b) Licensure/certification processes: not applicable.** The ACPE is the only accrediting body outside the Commission and the Board of Trustees for the USC.
- c) Teacher education: not applicable.** Neither the B.S. in Pharmaceutical Sciences nor the Doctor of Pharmacy has a teacher education focus.

## **15. Articulation**

- a) Students from two-year institutions may enter the B.S. in Pharmaceutical Sciences upon completion of USC admissions requirements and after obtaining a minimum GPA of a 3.0 after the completion of at least twelve college credit courses.**
- b) After completing the B.S. in Pharmaceutical Sciences, graduates may earn the Doctor of Pharmacy (Pharm.D.) upon completion of two additional years of professional study.**
- c) The 3 + 1 programs at Clemson University, Francis Marion University, and Claflin University allow students to earn a baccalaureate degree at the host institution after three years of undergraduate coursework and one year of professional coursework in the SCCP. Since these institutions are not obligated to the Carolina Core and require just one year of professional coursework, these students will not qualify for the B.S. in Pharmaceutical Sciences at USC.**

However, any student from another state institution who has met all the pre-professional requirements of the B.S. in Pharmaceutical Sciences, is successfully admitted into the professional program prior to obtaining a baccalaureate degree from another institution, and completes the first two years of the professional program, is eligible for the degree. This information will be posted on the SC Trac website.

## **16. Estimated Costs and Sources of Financing**

### **a) Estimated Costs and Sources of Financing by Year (Table D)**

<b>ESTIMATED COSTS BY YEAR</b>						
<b>CATEGORY</b>	<b>1<sup>st</sup></b>	<b>2<sup>nd</sup></b>	<b>3<sup>rd</sup></b>	<b>4<sup>th</sup></b>	<b>5<sup>th</sup></b>	<b>TOTALS</b>
Program Administration	\$70,000	\$71,400	\$72,830	\$74,290	\$75,800	\$364,320
Faculty Salaries	\$560,000	\$570,200	\$581,600	\$593,200	\$605,100	\$2,910,100
Graduate Assistants	0	0	0	0	0	0
Clerical/Support Personnel	\$230,000	\$234,600	\$239,300	\$244,100	\$249,000	\$1,197,000
Supplies and Materials	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
Library Resources	0	0	0	0	0	0
Equipment	0	0	0	0	0	0
Facilities	0	0	0	0	0	0
Other (Identify)	0	0	0	0	0	0
<b>TOTALS</b>	\$870,000	\$886,200	\$903,730	\$921,590	\$939,900	\$4,521,420
<b>SOURCES OF FINANCING BY YEAR</b>						
Tuition Funding	\$3,240,000	\$3,337,200	\$3,437,316	\$3,540,36	\$3,646,650	\$17,201,602
Program-Specific Fees	0	0	0	0	0	0
State Funding	0	0	0	0	0	0
Reallocation of Existing Funds	0	0	0	0	0	0
Federal Funding	0	0	0	0	0	0
Other Funding (Specify)	0	0	0	0	0	0
<b>TOTALS</b>	\$3,240,000	\$3,337,200	\$3,437,316	\$3,540,436	\$3,646,650	\$17,201,602

- b)** Tuition and Fees are calculated at a 3% increase per year. Assumes 135 students paying resident tuition of approximately \$24,000/year.

The program administration costs are projected by the salary and fringe benefits of the Assistant Dean for Undergraduate Programs.

The faculty costs are based on 4 FTE's providing the instruction to the students even though 16 faculty members will share in the teaching responsibilities.

Clerical/Support personnel are projected by 75% effort of 3 student advisors and 1 administrative assistant.

Supply costs reflect office and technology supplies.

- c)** No new costs to the institution or college are expected since the program is essentially being taught without recognizing or conferring the BS degree.

The college expects only limited additional costs for this new degree program since all of the courses and support personnel are currently in place in the institution and the college.

- d)** No unique costs or special state appropriations will be required or requested.

Additional costs are expected for an administrative supplement and support for the Assistant Dean which will be relocated from existing funds in the college budget.