

Status: PENDING

**PROGRAM REQUEST**  
Pharmaceutical Sciences

Last Updated: Myers, Dena Elizabeth  
04/05/2011

<b>Fiscal Unit/Academic Org</b>	Pharmacy - D1800
<b>Administering College/Academic Group</b>	Pharmacy
<b>Co-administering College/Academic Group</b>	
<b>Semester Conversion Designation</b>	Converted with minimal changes to program goals and/or curricular requirements (e.g., sub-plan/specialization name changes, changes in electives and/or prerequisites, minimal changes in overall structure of program, minimal or no changes in program goals or content)
<b>Current Program/Plan Name</b>	Pharmacy
<b>Proposed Program/Plan Name</b>	Pharmaceutical Sciences
<b>Program/Plan Code Abbreviation</b>	PHARM-MS
<b>Current Degree Title</b>	Master of Science

**Credit Hour Explanation**

Program credit hour requirements		A) Number of credit hours in current program (Quarter credit hours)	B) Calculated result for 2/3rds of current (Semester credit hours)	C) Number of credit hours required for proposed program (Semester credit hours)	D) Change in credit hours
Total minimum credit hours required for completion of program		45	30.0	30	0.0
Required credit hours offered by the unit	Minimum	60	40.0	40.5	0.5
	Maximum	60	40.0	40.5	0.5
Required credit hours offered outside of the unit	Minimum	27	18.0	17	1.0
	Maximum	29	19.3	18.5	0.8
Required prerequisite credit hours not included above	Minimum	0	0.0	0	0.0
	Maximum	0	0.0	0	0.0

**Program Learning Goals**

Note: these are required for all undergraduate degree programs and majors now, and will be required for all graduate and professional degree programs in 2012. Nonetheless, all programs are encouraged to complete these now.

- Program Learning Goals**
- Identify research questions to address a problem.
  - Identify/ interpret/ critique literature/ assess state of knowledge regarding problem.
  - Design and write experimental protocol, including study Methods/Design/ Implementation.
  - Conduct and complete research project contributing new information to the field.
  - Communicate research results, both verbally and through writing.
  - Conduct ethically responsible research.
  - Demonstrate preparation for careers in academia, industry, government agencies, or other related fields.

**Assessment**

Assessment plan includes student learning goals, how those goals are evaluated, and how the information collected is used to improve student learning. An assessment plan is required for undergraduate majors and degrees. Graduate and professional degree programs are encouraged to complete this now, but will not be required to do so until 2012.

**Is this a degree program (undergraduate, graduate, or professional) or major proposal? Yes**

**Does the degree program or major have an assessment plan on file with the university Office of Academic Affairs? No**

**DIRECT MEASURES (means of assessment that measure performance directly, are authentic and minimize mitigating or intervening factors)**

**Standardized tests**

- Local comprehensive or proficiency examinations

**Classroom assignments**

- Embedded testing (i.e. specific questions in homework or exams that allow faculty to assess students' attainments of a specific learning goal)

**Evaluation of a body of work produced by the student**

- Practicum, internship or research evaluation of student work
- Senior thesis or major project

**Direct assessment methods specifically applicable to graduate programs**

- Candidacy exams
- Research proposals written and grants awarded
- Thesis/dissertation oral defense and/or other oral presentation
- Thesis/dissertation (written document)
- Publications

**INDIRECT MEASURES (means of assessment that are related to direct measures but are steps removed from those measures)**

**Surveys and Interviews**

- Student survey
- Alumni survey
- Employer feedback or survey
- Student evaluation of instruction
- Student interviews or focus groups

**Additional types of indirect evidence**

- Job or post-baccalaureate education placement
- Student or alumni honors/recognition achieved
- Comparison or benchmarking

**USE OF DATA (how the program uses or will use the evaluation data to make evidence-based improvements to the program periodically)**

- Meet with students directly to discuss their performance
- Analyze and discuss trends with the unit's faculty
- Analyze and report to accrediting organization
- Make improvements in course content
- Periodically confirm that current curriculum and courses are facilitating student attainment of program goals

**Program Specializations/Sub-Plans**

If you do not specify a program specialization/sub-plan it will be assumed you are submitting this program for all program specializations/sub-plans.

**Program Specialization/Sub-Plan Name** Health System Pharmacy Admin (Existing)

**Program Specialization/Sub-Plan Goals** •

**Program Specialization/Sub-Plan Name** Translational Science (Existing)

**Program Specialization/Sub-Plan Goals** •

**Program Specialization/Sub-Plan Name** Pharmacology (Existing)

**Program Specialization/Sub-Plan Goals** •

**Program Specialization/Sub-Plan Name** Pharmaceuticals (Existing)

**Program Specialization/Sub-Plan Goals** •

Status: PENDING

**PROGRAM REQUEST**  
Pharmaceutical Sciences

Last Updated: Myers,Dena Elizabeth  
04/05/2011

Program Specialization/Sub-Plan Name      Pharmaceutical Administration (Existing)  
 Program Specialization/Sub-Plan Goals      •  
 Program Specialization/Sub-Plan Name      Medicinal Chemistry (Existing)  
 Program Specialization/Sub-Plan Goals      •

**Pre-Major**

Does this Program have a Pre-Major? No

**Attachments**

- MS\_submission.pdf: letter, rationale, plan outline  
*(Letter from the College to OAA. Owner: Kelley,Katherine Ann)*

**Comments**

**Workflow Information**

Status	User(s)	Date/Time	Step
Submitted	Kelley,Katherine Ann	03/31/2011 09:22 AM	Submitted for Approval
Approved	Kelley,Katherine Ann	03/31/2011 09:22 AM	Unit Approval
Approved	Brueggemeier,Robert Wayne	03/31/2011 10:53 AM	College Approval
Approved	Myers,Dena Elizabeth	04/05/2011 02:47 PM	GradSchool Approval
Pending Approval	Soave,Melissa A	04/05/2011 02:47 PM	CAA Approval



College of Pharmacy

**Office of the Dean**

217 Parks Hall  
500 West 12<sup>th</sup> Avenue  
Columbus, OH 43210-1291

Phone (614) 292-5711

Fax (614) 292-3113

E-mail [Brueggemeier.1@osu.edu](mailto:Brueggemeier.1@osu.edu)

March 31, 2011

Office of Academic Affairs  
203 Bricker Hall  
190 North Oval Mall  
Columbus, OH 43210-1358

Dear Office of Academic Affairs:

On behalf of the College of Pharmacy, I am pleased to recommend for approval the Program Plan for our Master of Science in Pharmaceutical Sciences degree. This submission contains the details of our Master's program conversion only. The PhD program is submitted separately. The professional program was approved in August 2010, and our Bachelor of Science in Pharmaceutical Sciences was approved in February 2011.

The Graduate Studies Committee (a curriculum and assessment committee) led the process of conversion for the graduate degrees. This committee coordinated and approved the course and program changes. Input was gathered widely from course directors, students, division members and finally the faculty as a whole. The proposed curriculum was presented formally to the entire faculty on February 4, 2011 and unanimously approved by the faculty on March 4, 2011. Data entry of the new program was handled by the Office of Assessment and approved by me.

Should you have any questions or concerns, please feel free to contact me directly.

Sincerely,

A handwritten signature in black ink that reads 'Robert W. Brueggemeier'.

Robert W. Brueggemeier, Ph.D.  
Dean, College of Pharmacy  
Professor, Medicinal Chemistry

**Program Rationale**  
**College of Pharmacy**  
**Master of Science Degree Programs**

There are 6 specializations of Master of Science degrees granted by the College of Pharmacy.

The specialization in Health-System Pharmacy Administration masters program prepares students for leadership roles in health system pharmacy. The combination of coursework and research project uniquely prepares graduates to successfully navigate the complexities of management of personnel and resources of the health care system. Notable changes to the coursework of this program were the combining of the 3 course sequence PHR 816, 817 and 825 into 2 semester courses (8160-8170) and the combining of 2 research courses (PHR 894) into one course new course PHR 8180. In addition the research and project courses (PHR 970 and 993) were combined to simply be PHR 9993.

The other 5 specializations (Medicinal Chemistry, Pharmaceutical Administration, Pharmaceutics, Pharmacology, and Translational Sciences) are graduate degrees that are infrequently granted by the College as endpoints of their graduate education in the College. Students are not recruited for these degrees; they are recruited directly to PhD programs. If it becomes necessary for a student to depart the College prior to the completion of the PhD, the Master's degree may be granted where appropriate requirements have been completed.

College of Pharmacy  
MS in Pharmacy  
Specialization: Health-System Pharmacy Administration

SEMESTERS	QUARTERS
<b>Required courses offered in College of Pharmacy</b>	
Core courses	Core courses
PHR 8160 (4)	PHR 816 (4)
PHR 8170 (4)	PHR 817 (4)
	PHR 825 (4)
PHR 8180 (3)	PHR 894 (2)
	PHR 894 (2)
PHR 5610 (1.5)	PHR 761 (2)
PHR 8884 (4)	PHR 850.01 (6)
Supervised project in Health-system pharmacy and independent study (24 hours total) PHR 9993 (24 hours required)	Supervised project in Health-system pharmacy and independent study (36 hours total) PHR 970 (9 hours required) PHR 993 (27 hours required)
<b>Semester Hours TOTAL: 40.5</b>	<b>Quarter Hours TOTAL: 60</b>
<b>Required courses offered outside the College of Pharmacy</b>	
Minimum 15 hours	Minimum 24 hours
PUBHMP 815 (3)	HSMP 870.05 (2)
PUBHMP 820 (3)	HSMP 815 (4)
PUBHMP 821 (3)	HSMP 820 (4)
PUBHMP 870 (1.5)	HSMP 821 (4)
PUBHMP 880 (3)	HSMP 831 (4)
PUBHMP 882 (3)	HSMP 880 (4)
	HSMP 882 (4)
Research Methods and Stats (2 hours required)	Research Methods and Stats (3 hours required) PUBH-BIO 701A (3)
<b>Semester Hours TOTAL: 17-18.5</b>	<b>Quarter Hours TOTAL: 27-29</b>

**Transition Policy**

The quarter courses 816, 817 and 825 are currently a one year sequence of 3 classes. These will be combined into the 2 semester sequence 8160 and 8170. Any student not completing all three quarter courses will be required to complete both 8160 and 8170. PHR 894 Research Methodology and 894 Economic evaluations of Health System Pharmacy Programs and services will be combined into a 1 semester course PHR 8180. Any student not completing an 894 course or the series will be required to complete 8180. Individual advisors will assist students enrolled during the transition from quarters to semesters to plan their course of study according to the requirements above. In an effort to simplify registration for students the combination of research and project hours (PHR 993 and 970) will become simply 9993 hours in semesters.