Ph.D. in Pharmaceutical Sciences

Doctor of Philosophy

Programs of study leading to the Doctor of Philosophy (Ph.D.) degree are offered through the Department of Biomedical and Pharmaceutical Sciences (emphasis areas of Pharmaceutics, Drug Discovery, or Pharmacology) and through the Department of Pharmacy Practice and Administrative Sciences (emphasis in Pharmacoeconomics and Administrative Sciences). The Ph.D. degree is a research degree and will be conferred upon the completion and report of a substantial body of original work.

Admission Requirements

The student must apply to and meet all criteria for admission to the Graduate School. In addition to the general requirements of the Graduate School, the student must comply with the following:

1. Professional degree in pharmacy or a baccalaureate degree in a related field (i.e., biology, chemistry, psychology).
2. GPA of not less than 3.0 for all upper-division courses (final two years).
3. Official report of Graduate Record Examination Scores with a minimum combined score of 300 is required on the verbal and quantitative sections and at least 50th percentile in one of the GRE sections (verbal, quantitative, or Analytical). **This requirement will no longer be required beginning in the 2027-2028 application cycle.*
4. Applicants must have a demonstrated proficiency in the English language. Students from countries where English is not the first language must demonstrate proficiency in the English language with a minimum score of 79 (internet#based test) on the Test of English as a Foreign Language (TOEFL) OR an overall band of 6.5 on the Academic Examination of the International English Language Testing System (IELTS).
5. Three letters of recommendation from individuals familiar with the applicant's academic ability and potential for graduate study.
6. Applicants must provide a personal statement of interest describing their career goals and identify which area of emphasis in the graduate program the applicant intends to follow and members of the department faculty with whom the applicant would prefer to complete his/her degree. Applications without a personal statement following these guidelines will be rejected.

Meeting minimum requirements does not guarantee admission. Other factors such as research publications, other evidence of scholarly work, strong recommendations by department graduate faculty, or compatibility of the applicant's career goals with department programs may influence the Admissions Committee to recommend conditional acceptance in the event that minimum qualifications have not been met.

Deadlines

All application materials and supplemental documents must be submitted by the final deadline date to be reviewed for admission.

All application materials and supplemental documents must be submitted by the priority deadline date to be considered for department financial support.

Fall applications:

- Priority Deadline- January 10
- Department Final Deadline - April 1

Spring applications

- Priority Deadline - September 1
- Department Final Deadline - November 1

General Requirements

Each beginning graduate student will have a graduate advisor assigned from the graduate faculty upon entry into the program. The student's advisor will assist the student in preparing an appropriate program of study of course work. While there is no fixed credit requirement for the Ph.D. in Pharmaceutical Sciences, the overall program of study will include at least 72 semester hours of graduate course work. The student is expected to have selected a major advisor from the graduate faculty no later than the end of his/her second semester in residence.

A grade below B is unsatisfactory and will not be counted toward fulfilling the minimum requirements for the degree. Upon recommendation of the student's advisor, and with the approval of the Graduate Program Director, a student may be required to withdraw at any time for failure to maintain satisfactory progress toward the degree.

When coursework is essentially complete, candidates for the Ph.D. degree complete a series of written and oral comprehensive examinations that include the defense of a written research proposal. Upon completion of all proposed research, the student's findings will be reported in the form of a dissertation to be prepared in accordance with Department and Graduate School guidelines. While the dissertation must be defended to the graduate faculty of the College, acceptability only requires the affirmative vote of a majority of the student's committee members.

Doctor of Philosophy in Pharmaceutical Sciences

(Drug Discovery, Pharmaceutics, or Pharmacology Emphasis)

Admission Requirements

See General Admission Requirements above. Applications for the graduate program in Pharmaceutical Sciences are reviewed twice yearly near the end of the fall and spring semesters. Deadline for the receipt of applications is April 1 for admission in the fall semester, and October 1 for admission in the spring semester. Incomplete applications and applications received after these deadlines will not be considered.

International students should also refer to the "Admission of International Students" section of the Graduate Catalog. Students with international coursework to be considered with their applications must submit an official detailed evaluation report from an institution that is a member of the National Association of Credential Services Incorporated (NACSI).

Course Requirements

Code	Title	Credits
PSCI 5508	Respons Conduct in Research	1
PSCI 6601	Graduate Seminar (1 credit per semester, must take 4 minimum) [1]	4
PSCI 6602	Research Design and Analysis for Pharmaceutical Sciences	3
PSCI 6605	Critical Literature Evaluation (1 credit per semester, must take 6 minimum) [1]	6
PSCI 6698	Dissertation Research (1-10 credits per semester, must take 18 minimum) [2]	18

PSCI 8850	Dissertation (1 credit per semester, must take 2 minimum)	2
Electives in Pharmaceutical Sciences (9 credits minimum)		21
Biomedical and Pharmaceutical Sciences related courses (as determined by committee)		17

1 Repeatable course.

2 Minimum 20 credits required between Dissertation Research and Dissertation.

* Students enrolled in the MS, PhD, PharmD/PhD, and PharmD/MS programs may take BIOL 6605 - Biometry, which is deemed an equivalent course to PSCI 6602 - Research Design and Analysis for Pharmaceutical Sciences. Either PSCI 6602 or BIOL 6605 is counted towards the core course requirements.

* For students enrolled in the PharmD/Ph.D. and PharmD/MS dual degree programs who have completed PHAR9924 (PSCI6620 equivalent), PHAR9921 (PSCI6618 equivalent), PHAR9922 (PSCI6619 equivalent), and PHAR9926/ PHAR9926R (PSCI6652 equivalent), each PHAR courses or their equivalent PSCI courses may be counted only once as Electives in Pharmaceutical Sciences or Biomedical and Pharmaceutical Sciences related courses for the fulfillment of the MS and PhD Course Requirements.

A minimum of 72 credits including a minimum of 20 credit hours in dissertation research (PSCI 6698 (http://coursecat.isu.edu/search/?P=PSCI%206698)) and dissertation (PSCI 8850 (http://coursecat.isu.edu/search/?P=PSCI%208850)) are required. For all degree candidates, at least one half of total graduate credit hours required by the student's Graduate Program Committee must be 6600 level. Minimum graduate credit requirements usually do not fulfill Departmental degree requirements. Specific details are provided in the Department of Pharmaceutical Sciences Graduate Guidelines.

All students in the graduate program, whether seeking the Doctor of Philosophy or the Master of Science, are expected to demonstrate proficiency in written and spoken English. Students may be required to successfully complete classes in speech and in technical writing at the request of the graduate program director and the graduate faculty of the Department of Biomedical and Pharmaceutical Sciences.

Doctor of Philosophy in Pharmaceutical Sciences

(Pharmacoeconomics and Administrative Sciences Emphasis)

Course Requirements

Code	Title	Credits
Statistics and Research Methods		
BIOL 6605	Biometry	4
Statistics and Research Methods		4
PADM 6605	Research Methods in Pharmacy Administration	3
PSYC 6632	Statistics and Research Design II	3
Pharmacy Administration Major Courses		
PADM 6601	Graduate Seminar in Pharmacy Administration	1
PADM 6610	Social and Behavioral Aspects of Pharmacy Practice	3
PADM 6632	Medical Economics	3
PADM 6634	Advanced Pharmacy Administration I	3
PADM 6635	Advanced Pharmacy Administration II	3
Major area elective courses		12
Minor Area Courses (12 courses) [2]		
Minor area elective courses		12
Research Activities (19 credits minimum) [2]		
PADM 6650	Thesis Research [2]	3
PSCI 6698	Dissertation Research (18 credits minimum)	1-10
PSCI 8850	Dissertation	1

1 A student entering the Ph.D. program with an M.S. degree in a related area may petition the Advisory Committee to waive the elective 12 credits required in a minor area of study.

2 All students must have research experience prior to beginning the dissertation. If a student has not completed an M.S. thesis, then s/he must complete a minimum of 3 credits of graduate research (PADM 6650) and complete a research project resulting in a paper of publishable quality. If a student has completed an M.S. thesis, s/he may petition the Advisory Committee to accept it as fulfillment of this requirement.