

# PHARMACEUTICAL SCIENCES (M.S.)

**Admission:** Admission to this program is contingent upon admission to the Graduate School (<http://bulletins.wayne.edu/graduate/general-information/admission/>). For the master's degree program, with a major in pharmaceutical sciences, the following criteria must also be satisfied:

The General portion of the Graduate Record Examination is required of all applicants. There are no minimum GRE scores required for admissions; however, applicants scoring below 150 on the quantitative portion of the exam are generally not admitted.

Applicants whose native language is other than English must demonstrate proficiency in English (<http://bulletins.wayne.edu/graduate/general-information/admission/>) prior to beginning the program.

In addition to the regular University application, the applicant must also submit the following:

1. A general statement (300-400 words, typewritten) of reasons for selecting the program, including a resume, career objectives, possible research interests, and a list of faculty members that the applicant is interested in working with for their thesis.
2. Three letters of recommendation.

If an applicant's undergraduate preparation is considered deficient for advanced work in the pharmaceutical sciences, additional work may be required at the undergraduate level. All prerequisite credits must be earned prior to or concurrent with the first graduate credits.

Graduate program policy and procedures (<https://cphs.wayne.edu/sciences/pdf/psc-policies-procedures.pdf>) and details about M.S. plans of work (<https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fcphs.wayne.edu%2Fsciences%2Fplan-of-work%2Fms.xlsx&wdOrigin=BROWSELINK>) are available via the department website.

The Master of Science with a major in Pharmaceutical Sciences is offered only as a Plan A master's program requiring thirty credits, including an eight-credit thesis.

Courses required will vary with the student's previous preparation and the area of specialization. These courses will be determined by the student's graduate advisor, with review and approval by the College Graduate Officer as formalized by the Plan of Work. In addition to individualized courses, all Master of Science students are required to complete four core interdisciplinary courses:

Code	Title	Credits
PSC 6800	Introduction to Research	2
PSC 7010	Advanced Drug Action and Safety I	3
PSC 7020	Advanced Drug Discovery I	3
PSC 7040	Advanced Drug Formulation and Delivery I	3

**Selection of Advisor:** The Graduate Director will act as a temporary advisor to all students until a permanent one is chosen. For M.S. and Ph.D. students, laboratory rotations are required before the student can be assigned to a laboratory. All students will register during their first semester for PSC 78X0, Research Techniques, under the direction of the Graduate Director. This will serve as the first semester laboratory rotation. Students will be required to rotate in three different laboratories. Each rotation lasts approximately 5 weeks and rotation openings are on a first-come-first-serve basis. At the end of each rotation, the student will be evaluated by the individual rotation advisor and the overall grade

for the course will be derived from these evaluations. Students who receive a grade lower than 'B' will be placed on probation. At the end of the semester, both students and Faculty members are asked to rank their choices. The Graduate Director makes lab assignments based upon these rankings. It should be noted that students are not guaranteed to be placed into the laboratory of the first choice. If a student does not find a suitable advisor after the first 3 rotations, a student will be given the opportunity to identify up to 3 additional rotations during the next semester. However, if no additional rotations (after the first 3 rotations) can be secured from faculty members in the department, the student will be dismissed from the program immediately.

**Seminar Presentation:** Students joining the program in fall or winter semester will register for PSC 7860 in the Spring/Summer semester of their first year and provide a seminar of 20 minutes in length describing their research experiences during their first year. Students joining the program in the Spring/Summer semester will register for PSC 7860 the following year.

All students will register for PSC 7870 in the Fall semester of the second year and will present a 45-minute seminar on a topic not directly related to the student's thesis/dissertation work. The topic will be selected by the student in concert with his/her research advisor and must be approved by that semester's seminar coordinator not less than two weeks prior to the scheduled seminar. Furthermore, the student must make available to the Department a two-page abstract of the seminar. References must be included and do not count towards the two-page limit. The abstract must be approved by the seminar coordinator, who will deliver it to the Department faculty, students, and staff by e-mail not less than one week prior to the seminar. Failure to comply with this requirement shall result in a lowering of the student's seminar grade by one full mark.

In semesters when they are not scheduled to give a formal seminar, all students in the Graduate Program are required to register for PSC 7850 (Pharmaceutical Sciences Colloquium) in each semester that they are in the program. Grades for PSC 7850 will be based upon attendance to the Departmental Seminars.

The progress of every student in the program will be reviewed by the departmental Graduate Program Committee. Each student is evaluated in terms of performance in course work, research progress, fulfillment of University requirements for filing a Plan of Work, and overall professional development. Students will use the IDP/Annual review form available on the Graduate School website. The forms are filled out by Oct. 1 of each year. The evaluation includes a written assessment by the faculty advisor of the student's strengths and weaknesses, as well as an indication of how any deficiencies will be addressed. All course work must be completed in accordance with the academic procedures of the Graduate School and the College governing graduate scholarship and degrees.

A student will be placed on probation for any of the following reasons:

1. Qualified admission status at the time of matriculation;
2. Receipt of a grade lower than 'B' in any Departmental course;
3. Receipt of a score of above 3 (i.e., Needs improvement or Needs significant improvement) on "Overall Rating of student progression towards degree" on the Committee Evaluation Form;
4. Inappropriate, unprofessional and unsafe conduct as determined by the GPC;
5. Failure to hold the 1<sup>st</sup> thesis/dissertation committee by the end of the 3<sup>rd</sup> semester (including spring/summer term) or failure to hold a committee meeting within one year of the previous meeting;
6. Failure to submit the Plan of Work to the Graduate School by the deadline described below.

The student will be informed in writing, at the time of being placed on probation, of the requirements for removal from probationary status. The decision to place a student on probation rests with the GPC. The GPC may request repeating a course in which a letter grade of less than B is obtained. The Department policy is to limit to two the number of courses that graduate students may repeat during their graduate career in the Department of Pharmaceutical Sciences. Each course may be repeated once. Students may repeat only courses in which they received a grade of B- or below. The original grade for the course will remain on the student's transcript, but only the second iteration of the grade will be used in calculating the student's Grade Point Average. Students will not receive University financial aid for repetition of courses.

A student may be dismissed from the program for the following reasons:

1. Failure to comply with requirements set by the Graduate Program Committee;
2. Receipt of two or more grades below 'B' in any single semester;
3. Unauthorized leave of absence;
4. Inability to find a research advisor;
5. Receipt of a grade less than B while on probation;
6. Failure to receive a grade of B or greater for a repeated Departmental course;
7. Failure to pass the Capstone exam on the second attempt;
8. Failure to graduate with a Ph.D. degree within 7 years after joining or transferring into our Ph.D. graduate program or failure to graduate with a M.S. degree within 4 years after joining or transferring into our M.S. graduate program;
9. Failure to abide by the University Student Code of Conduct (<https://doso.wayne.edu/pdf/student-code-of-conduct.pdf>);
10. Inappropriate, unprofessional and unsafe conduct as determined by the GPC;
11. Failed to pass the pre-defense on the third attempt.

The GPC must vote on dismissal of any student from the program and a simple majority vote is required for dismissal. Notice of dismissal shall be made by written communication from the Chairperson of the GPC. The students will be responsible for the tuition and fees for the courses from which they withdraw.

A student may appeal the GPC's actions by providing a written request for consideration to the Graduate Director. This request should document extenuating circumstances which the student feels should be considered by the Committee in its deliberations. The written appeal must be received by the Graduate Director within ten (10) calendar days after initial notification of probationary/exclusion status. The Graduate Director will provide all relevant data to the Chair of the Department. Appeals will be considered by the Chair of the Department whom may seek consultation with an ad hoc committee of the Faculty. A student may appeal the decision of the Chair to the Associate Dean of Pharmacy and then the Dean of the College. The decision of the Dean is final. The student will maintain his or her student status and financial support during the appeals process.

**Leave of Absence:** A leave of absence is defined as an absence from the Graduate Program for a duration of any length up to and including one (1) semester or longer. Leaves of absence of students are subject to WSU policies for the Non-Represented employees, including the provisions of the Family Medical Leave Act. A leave of absence shall only be permitted for extenuating personal or medical reasons. Students granted a leave of absence from the program may be required to do remedial work, depending upon the length of time the student is away from the program. For maternity leaves of absence, a student may request a leave of a maximum of 6 weeks and the leave must take place within the first 6-

weeks of the child's birth. A leave of absence for maternity leave must be requested at least 4 weeks before the start of the leave. Approval of the advisor and Graduate Director are required.

Students requesting a leave of absence longer than two (2) weeks from the Graduate Program must submit a written request (email is fine), approved by the student's advisor, to the Graduate Director for approval. Requests for medical leaves of absence must be accompanied by a signed affidavit from the student's physician. This shall contain an indication of the degree of impairment, date of initiation and anticipated duration. All requests for leaves of absence less than 15 days will need to be approved by the advisor. Requests for extension of an authorized leave of absence shall be made following the same procedures as the initial request. Unauthorized/unexcused absences may result in dismissal from the program.

**Withdraw/Resign from the Graduate Program:** Students have the right to withdraw/resign from the graduate program at any time by emailing a signed resignation letter to the Graduate Director and withdrawing from all the courses they are enrolled. However, students will be responsible for the tuition and fees for the courses from which they withdraw.

**Required Time on Research Activities:** Both the M.S. and Doctoral Degrees are research-based degrees that require students to conduct a research project under the director of an advisor. All students are expected to spend significant time in the laboratory. For Doctoral Degree students, it is required that students spend at least 37.5 hours per week (including total hours spent on weekdays, evenings and weekends) on research activities in the lab or outside the laboratory (e.g., at home). Research activities include any activities related to the student's research that are instructed and approved by the advisor or have been assigned by the faculty during rotation. The M.S. program is considered a full-time degree program and thus there is the expectation that students will spend considerable time during the semester working on their thesis work. M.S. students who are not supported by the Department or advisor are required to spend at least 20 hours per week on research activities. M.S. students that are supported by funds are expected to follow the nature of the funding provided to them. Both degree programs hold classes and research in all semesters (Fall, Winter and Spring/Summer). Both Ph.D. and M.S. students may have to work during the evening, weekends and/or holidays as dictated by the nature of the research projects.