

# Pharmaceutical Sciences/Pharmaceutics, M.S.

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SCHOOL OF PHARMACY

## About the Program

The School of Pharmacy offers a graduate program leading to the M.S., with a choice of Thesis or Non-Thesis Option, and the Ph.D. in Pharmaceutical Sciences with a concentration in Pharmaceutics. The program is designed to prepare students for positions in the pharmaceutical industry, government agencies, and faculty positions in schools of pharmacy.

**Time Limit for Degree Completion:** 5 years

**Campus Location:** Health Sciences Center, Fort Washington

Students in the [Thesis Option](#) take a majority of required and elective courses at the Health Sciences Center and Fort Washington campuses. Some courses may be offered at Main campus. Research must be carried out at the Health Sciences Center campus under the supervision of an advisor who is a member of the Graduate Faculty.

Students in the [Non-Thesis Option](#) take a majority of required and elective courses at Fort Washington. Some courses may be offered at the Health Sciences Center campus.

**Full-Time/Part-Time Status:** The program is considered full-time for those in the [Thesis Option](#) and part-time for those in the [Non-Thesis Option](#). Part-time students can complete the program through classes offered during evenings and weekends primarily at the Fort Washington campus.

**Interdisciplinary Study:** The program encourages interdisciplinary coursework, research, and collaborations among faculty and students with interests in biochemistry, molecular modeling, organic chemistry, and pharmacology.

**Areas of Specialization:** Faculty members specialize and offer graduate coursework in controlled release dosage forms, drug metabolism, encapsulation, mechanisms of drug action, pharmaceutical analysis, pharmacokinetics, and solid dosage forms.

**Job Prospects:** Graduates generally find employment in the pharmaceutical industry, government agencies, or academia.

**Non-Matriculated Student Policy:** Non-matriculated students are able to take up to 9 credits before formal application must be made to the program.

**Financing Opportunities:** Master's-level students are generally not considered for financial support. Financial support in the form of University fellowships, teaching assistantships, and research assistantships is generally available to Ph.D. candidates only. Only under rare circumstances are M.S. students in the [Thesis Option](#) considered for support; students enrolled in the [Non-Thesis Option](#) are ineligible for financial support because their program is part-time.

## Admission Requirements and Deadlines

### Application Deadline:

*Fall:* December 15

All applications are evaluated together after the deadline.

For the [Thesis Option](#), APPLY ONLINE.

For the [Non-Thesis Option](#), contact Sophon Din, Administrative Assistant, at [tuspgrad@temple.edu](mailto:tuspgrad@temple.edu) or 215-707-4972. Application materials are to be mailed to:

Temple University School of Pharmacy  
Dept. of Pharmaceutical Sciences  
Office of Graduate Studies  
3307 N. Broad Street, Suite 528  
Philadelphia, PA 19140

### Letters of Reference:

*Number Required:* 3

*From Whom:* Letters of recommendation should be obtained from college/university faculty members familiar with the applicant's academic competence and professionals in a supervisory position.

**Coursework Required for Admission Consideration:** It is recommended that applicants should have completed a minimum of two years of General Chemistry, including Organic Chemistry; one Analytical Chemistry course; and Mathematics, including at least Introductory Calculus. A course in Physical Chemistry is also advisable.

**Bachelor's Degree in Discipline/Related Discipline:** A baccalaureate degree in Pharmacy, Biology, Biochemistry, Chemistry, Engineering, or a related discipline is required.

Preferably, official transcripts are forwarded electronically. Transcripts from all post-secondary institutions attended may be sent electronically to [tusgrad@temple.edu](mailto:tusgrad@temple.edu). Alternately, unopened official transcripts bearing the school's seal must be sent directly from the Registrar at each institution to the School of Pharmacy's Office of Graduate Studies.

Applicants who earned a degree at a non-U.S. institution must submit an equivalency evaluation of their transcript(s) through a third-party provider, either World Education Services (WES) or Educational Credential Evaluators (ECE).

**Statement of Goals:** In approximately 500 to 1,000 words, state your specific interest in Temple's program, your research goals, your future career goals, and your academic and research achievements.

**Standardized Test Scores:**

GRE: Waived for Fall 2022 admission to the [Thesis Option](#). If submitted, scores are expected to be in the 65th percentile or above. Note that the GRE is not required for the [Non-Thesis Option](#).

Applicants who earned their baccalaureate degree from an institution where the language of instruction was other than English, with the exception of those who subsequently earned a master's degree at a U.S. institution, must report scores for a standardized test of English that meet these minimums:

- TOEFL iBT: 85
- IELTS Academic: 6.5
- PTE Academic: 58

**Resume:** Current resume or CV is required whether applying for the [Thesis Option](#) or the [Non-Thesis Option](#).

**Transfer Credit:** With approval, courses specific to the field of Pharmaceutics may be transferred into the program. Applicants must present supporting documentation (syllabus, course description, and/or transcript) for transfer consideration at the time of application. The maximum number of credits a student may transfer into the M.S. program is 6.

## Program Requirements

**General Program Requirements:**

*Number of Credits Required Beyond the Baccalaureate: 36*

*Required Courses:*

### Thesis Option

Code	Title	Credit Hours
<b>Core Courses</b>		
PS 8000	Topics in Pharmaceutical Sciences	3
PS 8002	Pharmaceutical Analysis	3
PS 8051	Seminar in Pharm Science	1
PS 8121	Department of Pharmaceutical Sciences Seminar Series	1
PS 8127	Pharmacokinetics	3
PS 8128	Principles in Drug Discovery	3
PS 8129	Bioethics in Research	2
PS 8403	Advanced Pharmacogenomics	2
QARA 5451	Statistical Quality Control	3
<b>Concentration-Specific Courses</b>		
PS 8003	Pharmaceutical Manufacturing I: Preformulation/Formulation	3
PS 8004	Pharmaceutical Manufacturing II	3
<b>Elective</b>		
<b>Research Course</b>		

PS 9996	Master's Research	6
<b>Total Credit Hours</b>		<b>36</b>

## Non-Thesis Option

Code	Title	Credit Hours
<b>Core Courses</b>		
PS 8002	Pharmaceutical Analysis	3
PS 8003	Pharmaceutical Manufacturing I: Preformulation/Formulation	3
PS 8004	Pharmaceutical Manufacturing II	3
PS 8005	Pharmaceutical Biotechnology	3
PS 8006	Physical Pharmacy I	3
PS 8007	Applied Biopharmaceutics	3
<b>Electives</b>		
Select six of the following approved courses:		18
PS 5451	Statistical Quality Control	
PS 5492	Production of Sterile Products	
PS 5493	Sterilization Processes	
PS 5499	Pharmaceutical Drug Dosage Forms	
PS 5501	Development of Sterile Products	
PS 8008	Advanced Principles of Pharmacokinetics	
PS 8111	Introduction to Toxicology	
PS 8478	Modified Release Dosage Forms	
PS 8582	Physical Pharmacy II	
QARA 5469	Pharmaceutical Laboratory Quality Systems and Operations	
QARA 5477	Good Manufacturing Practices	
QARA 5478	High Purity Water Systems	
QARA 5512	Microbiological Concepts in Pharmaceutical Manufacturing	
QARA 5575	Regulatory Sciences: Managing the Guidelines to Quality	
QARA 5655	Analytical Chemistry in Pharmaceutical Laboratories	
<b>Total Credit Hours</b>		<b>36</b>

### Culminating Events:

#### Thesis:

For the Thesis Option, the M.S. thesis is the culminating event. The thesis is an original, theoretical, and/or empirical study that contributes to the field of Pharmaceutics. It should expand existing knowledge and demonstrate the student's knowledge of research methods and a mastery of her/his primary area of interest. The thesis should be rigorously investigated; uphold the ethics and standards of the Pharmaceutics field; demonstrate an understanding of the relationship between the primary area of interest and the broader field of Pharmaceutics; and be prepared for publication in a professional journal.

Students who are preparing to defend their thesis should confirm a time and date with their advisor and register with the Administrative Assistant at least 15 days before the defense is to be scheduled. The Administrative Assistant arranges the time, date, and room within two working days and forwards to the student the appropriate forms. Once approved, the public announcement of the defense is posted.

The Thesis Examining Committee evaluates the student's ability to express verbally her/his research question, methodological approach, primary findings, and implications. This committee is comprised of at least three Graduate Faculty members. Two members, including the Chair, must be members of the Graduate Faculty of the School of Pharmacy. The Thesis Examining Committee votes to pass or fail the thesis and the defense at the conclusion of the public presentation.

The Non-Thesis Option has no culminating events.

## Contacts

### Program Web Address:

<https://pharmacy.temple.edu/academics/graduate-program>

## **Department Information:**

Dept. of Pharmaceutical Sciences Office of Graduate Studies  
School of Pharmacy  
3307 N. Broad Street, Suite 528  
Philadelphia, PA 19140  
tuspgrad@temple.edu  
215-707-4972

## **Submission Address for "Thesis Option" Application Materials:**

[https://apply.temple.edu/PHARM\\_GRAD/](https://apply.temple.edu/PHARM_GRAD/)

## **Mailing Address for "Non-Thesis Option" Application Materials:**

Dept. of Pharmaceutical Sciences Office of Graduate Studies  
School of Pharmacy  
3307 N. Broad Street, Suite 528 (602-00)  
Philadelphia, PA 19140

## **Department Contacts:**

### *Admissions:*

Sophon Din  
tuspgrad@temple.edu

### *Program Coordinator:*

Daniel J. Canney, Ph.D.  
tuspgrad@temple.edu

### *Graduate Chairperson:*

Swati Nagar, Ph.D.  
phscgrad@temple.edu

### *Department Chairperson:*

Ellen Walker, Ph.D.  
ellen.walker@temple.edu