

PHARMACOLOGY, MS

One Year Masters Program

- A one year post-baccalaureate program leading to the MS degree in Pharmacology
- Designed for those interested in improving their credentials to gain admission to a medical or dental school
- Class size is maintained at less than 35 to create a more personal connection between students & faculty
- Students in our MS program take the School of Medicine's 2nd year Medical Pharmacology course (taught separately in a different sequence)
- All graduate courses are taught within the School of Medicine by full time Medical School faculty
- Successful performance will significantly improve ones credentials for applying to medical or dental school.
- Students who took the MCAT a second time after completing our MS program between 2009-2013 significantly increased their MCAT score by 3.5 ± 1.8 ($n=47$, $P < 0.0001$) (based upon the pre-2015 MCAT scale of 3-45).
- **Over the past 5 years 78.5% of pharmacology MS graduates have gained admittance into medical, dental or graduate school** (113/144 students for classes graduating between 2013-2017).

Objectives

- To train students in the principles underlying the discipline of pharmacology
- To learn the approach, rationale, and methods required to design and conduct research in pharmacology

Tulane became the first national research institution to integrate public service into its core curriculum for undergraduates in 2006. Now, the entire university community, including the schools of Architecture, Business, Law, Liberal Arts, Medicine, Public Health and Tropical Medicine, Science and Engineering and Social Work – is committed to public service.

Public service is of particular importance to those entering our one year masters program, because providing a track record of significant public or community service has become a prerequisite for admission to most US medical schools. Students are expected to move beyond the scope of academics and work in a community to improve the health of a population. This is "what medicine is all about".

As a result, a core requirement of our Masters program in Pharmacology is that students provide public or community service averaging at least 1 hour per week, or 12 hours per semester. During the 2017-18 academic year, students in our pharmacology Master's program performed over 2167 hours of public service in the New Orleans area (with an average of 68 hours per student for the academic year).

Tulane has a Center for Public Service that helps connect students with numerous community partners & outreach programs that are active in the New Orleans area. As a part of the pharmacology curriculum, students are required to document their service activities in short essays, posted photos or video clips, and reflect upon the learning garnered from such activities in an online blog or wiki page. In addition, students are also expected to reflect on what they have learned from their academic and classroom activities.

Tulane is setting the standard for public service for the next generation of universities. When you receive a Tulane education, you will get a little something extra from community service activities that most other institutions don't offer. Our students get a unique educational experience that can be found Only in New Orleans. Only at Tulane.

Requirements

Non-Thesis Track: Historically most students have selected a non-thesis track. Students in this track are required to successfully complete a minimum of 30 credit hours of course work, including 4 elective courses (8 credit hours) in the Spring semester. Students can earn up to 32 credit hours for the year by signing up for 2 credit hours in the ePortfolio course during one semester.

Thesis Track: Students are required to complete the requirements for a Master's thesis, and successfully complete a minimum of 26 credit hours of course work, plus a total of 4 credit hours of Pharmacology Masters Research (divided between Fall & Spring semesters), for a total of 30 credit hours. The thesis can be based on either laboratory or library research (the topic to be chosen by the student in consultation with the advisor and the thesis committee). Students can also earn up to 32 credit hours for the year by signing up for 2 credit hours in the ePortfolio course each semester. Students on the thesis track should also sign up for Masters Thesis Research (0 credit hours) which will be included on a student's Transcript as evidence of having written a Thesis.

Community Service: A track record of community or public service has become a prerequisite for admission to most US medical schools. Students must complete a minimum of 1 hour of community service per week, or >12 hours per semester. Documentation & reflection on what students learn from community service activities is a component of the Pharmacology ePortfolio course. Students can also elect to perform 24 hours of community service in a semester for 2 credit hours in the ePortfolio course each semester. This can be used to complete 32 total credit hours at the end of the program.

Curriculum

Fall Semester 2019 and Spring Semester 2020

Year 1		Credit Hours
Fall		
GPHR 7210	Pharm Advances	1
GPHR 7250	Medical Pharmacology ¹	6
GPHR 7530	Molecular & Cellular Pharmacol	2
GPHR 7520	Pharmacology ePortfolio	2
GPHR 7230	Principles of Pharmacol	3
GPHR 7190	Pharmacology Seminar	1
Research Electives		0-2
GPHR 7510	Pharmacological Lab Research	2
GPHR 7505	Master's Research	2
Credit Hours		19-21
Spring		
GPHR 7220	Adv In Pharmacology	1
GPHR 7260	Medical Pharmacology ¹	4
GPHR 7520	Pharmacology ePortfolio	1-2
GPHR 7200	Seminar Pharmacology	1
GPHR 7240	Principles of Pharmacol	2
Thesis or Non-Thesis Track		4-8
Credit Hours		13-18
Total Credit Hours		32-39

¹ Requires concurrent registration for Principles of Pharmacology, or prior completion of Medical Physiology

Non Thesis Track

Masters students on the non-Thesis Track need to take all 4 electives listed below:

Course ID	Title	Credits
Spring Electives		
GPHR 7040	Neuropharmacology	2
GPHR 7160		2
GPHR 7050	Cellular Control Mechanm	2
GPHR 7060	Endocrine Pharmacology	2

Thesis Track

Masters students on the Thesis Track need to take 2 of the 4 electives, and take Pharmacology Lab Research in the Fall & Spring (for 2 credit hours per semester).

Course ID	Title	Credits
Spring Electives		
Select two of the following:		4
GPHR 7040	Neuropharmacology	
GPHR 7160		
GPHR 7050	Cellular Control Mechanm	
GPHR 7060	Endocrine Pharmacology	
Research Electives		
GPHR 7510	Pharmacological Lab Research (to be taken in the Fall and Spring for 2 credits per semester)	2