

# PHARMACY, DOCTOR OF (PHARM.D.)

## Special Degree Requirements

Refer to graduation requirements (<http://catalog.umt.edu/academics/graduation-requirements/>) listed previously in the catalog.

Degree candidates must:

1. Meet the general University requirements for graduation.
2. The student must have a 2.5 GPA to start the PharmD program.
3. Earn a grade point average of 2.0 or higher in each of the following areas:
  - a. all courses attempted at The University of Montana-Missoula (cumulative GPA).
  - b. all courses which carry a pharmacy (PHAR) prefix (pharmacy GPA).
  - c. all required courses in the professional pharmacy curriculum (professional GPA).
4. Required pharmacy course work must be completed with a grade of C- or better.
5. Complete at least six full academic years, including pre-pharmacy instruction, and a minimum of eight semesters of professional instruction as a full-time student registered for a minimum of twelve credits per semester.
6. Complete not less than 206 credits of course work with a minimum of 142 credits in the professional program.
7. Complete all other accreditation-required activities for pharmacy students (ACPE Standards 2016).

## Licensure in Montana

An applicant for licensure as a registered pharmacist in Montana must pass national examinations as required by the Montana State Board of Pharmacy. To qualify for the examinations, the applicant must be of good moral character and a graduate of an accredited school of pharmacy with a Doctor of Pharmacy degree; however, an applicant will not receive a license until all requirements have been met.

- Pre-pharmacy coursework must be completed before entering the professional pharmacy program.
- Students should note some pre-pharmacy courses have prerequisites and they should consider that when planning their schedules.
- Applicants to the professional pharmacy program must present proof of having completed at least 20 hours of observation in a pharmacy, other health care or social field, a writing assignment about the experience, and one evaluation form from someone involved with the applicant in such an experience.
- The Pharmacy College Admission Test (PCAT) must be taken within two years of application. Applications for the professional program are submitted through the PharmCAS system. See the School's prospective student webpage (<https://www.umt.edu/pharmacy/prospective-students/>) for more information.

## DUAL DEGREE IN THE DOCTOR OF PHARMACY AND THE M.S. IN PHARMACEUTICAL SCIENCES AND DRUG DESIGN

Students have the option of completing a dual-degree pathway toward the Doctor of Pharmacy and the M.S. in Pharmaceutical Sciences and Drug Design (<http://catalog.umt.edu/graduate/health/pharmacy/biomedical-pharmaceutical-sciences/pharmaceutical-sciences-drug-design-ms/>). This pathway allows students to substitute coursework taken as part of the Doctor of Pharmacy program for requirements in the M.S.

## Doctor of Pharmacy Summary

Code	Title	Hours
	Pre-Pharmacy Requirements	64
	Biology	
	General and Organic Chemistry	
	Physics	
	Mathematics	
	Communication & Social Sciences	
	Pre-Pharmacy Electives	
	Professional Pharmacy Curriculum	142
	Pharmaceutical & Biomedical Sciences	
	Clinical Sciences	
	Social Behavioral & Administrative Sciences	
	Introductory & Advanced Pharmacy Practice Experiences (IPPE & APPE)	
	<b>Total Hours</b>	<b>206</b>

**Degree Specific Credits:** 206 (64 Pre-pharmacy and 142 Professional credits)

**Required Cumulative GPA:** 2.0

## Pre-Pharmacy Requirements

### Biology

Code	Title	Hours
<b>Complete all of the following courses:</b>		
BIOH 112	Human Form and Function I	3
BIOH 113	Human Form and Function II	3
BIOB 260	Cellular and Molecular Biology	4
	<b>Total Hours</b>	<b>10</b>

Minimum Required Grade: C-

### General and Organic Chemistry

Code	Title	Hours
<b>Complete all of the following courses:</b>		
CHMY 141N & CHMY 142N	College Chemistry I and College Chemistry I Lab	5
CHMY 143N & CHMY 144N	College Chemistry II and College Chemistry II Lab	5

CHMY 221	Organic Chemistry I	5
& CHMY 222	and Organic Chemistry I Lab	
CHMY 223	Organic Chemistry II	3

**Total Hours** 18

Minimum Required Grade: C-

### Physics

Code	Title	Hours
<b>Complete all of the following courses:</b>		
PHSX 205N	College Physics I	5
& PHSX 206N	and College Physics I Laboratory	

**Total Hours** 5

Minimum Required Grade: C-

### Mathematics

Code	Title	Hours
<b>Complete the following course:</b>		
M 162	Applied Calculus	4
<b>Complete one of the following courses:</b>		

STAT 216	Introduction to Statistics	4
PSYX 222	Psychological Statistics	4
SOCI 202	Social Statistics	4

**Total Hours** 8

Minimum Required Grade: C-

### Communication & Social Sciences

Code	Title	Hours
<b>Complete all of the following courses:</b>		
COMX 111A	Introduction to Public Speaking	3
or THTR 120A	Introduction to Acting I	
PSYX 100S	Intro to Psychology	3
or SOCI 101S	Introduction to Sociology	
ECNS 201S	Principles of Microeconomics	3
WRIT 101	College Writing I	3

**Total Hours** 12

Minimum Required Grade: C-

### Pre-Pharmacy Electives

Code	Title	Hours
<b>Complete 11 elective credits. Speak with your advisor about completing this requirement.</b>		11

**Total Hours** 11

Minimum Required Grade: C-

## Professional Pharmacy Curriculum

Students must apply for admission to the professional program (<http://health.umt.edu/pharmacy/>). Students enrolled in the professional pharmacy curriculum are assessed a supplemental fee. This fee does not apply to pre-pharmacy students. Refer to the fees (<https://catalog.umt.edu/expenses-services-organizations/expenses/>) section of this catalog for details.

Students must demonstrate proficiency in pharmaceutical calculation by successfully completing a competency assessment prior to entering the second professional year.

## Pharmaceutical & Biomedical Sciences

Code	Title	Hours
<b>Complete all of the following courses:</b>		
PHAR 329	Microbes & Medicines	4
PHAR 331	Pharmaceutics	4
PHAR 341	Pharmaceutical Pathophysiology I	5
& PHAR 361	and Pharmaceutical Science Lab I	
PHAR 342	Pharmaceutical Pathophysiology II	5
& PHAR 362	and Pharmaceutical Science Lab II	
PHAR 371	Integrated Studies I	1
PHAR 372	Integrated Studies II	1
PHAR 381	Pharmaceutical Biochemistry	4
PHAR 421	Medicinal Chemistry I	3
PHAR 422	Medicinal Chemistry II	3
PHAR 443	Pharmacology & Toxicology I	4
PHAR 444	Pharmacology & Toxicology II	4

**Total Hours** 38

Minimum Required Grade: C-

## Clinical Sciences

Code	Title	Hours
<b>Complete all of the following courses:</b>		
PHAR 432	Clinical Pharmacokinetics	3
PHAR 451	Therapeutics I	4
& PHAR 471	and Integrated Studies III	
PHAR 452	Therapeutics II	4
& PHAR 472	and Integrated Studies IV	
PHAR 553	Therapeutics III	5
& PHAR 571	and Integrated Studies V	
PHAR 554	Therapeutics IV	6
& PHAR 563	and Pharmaceutical Care Lab V	
& PHAR 572	and Integrated Studies VI	
PHAR 565	Pharmacy APPE Preparation	3

**Total Hours** 25

Minimum Required Grade: C-

## Social, Behavioral & Administrative Sciences

Code	Title	Hours
<b>Complete all of the following courses:</b>		
PHAR 300	Pharmacy Practice I	5
& PHAR 360	and Pharmacy Practice Lab I	
PHAR 310	Pharmacy Practice II	2
PHAR 311	Healthy People	1
PHAR 350	Drug Info	1
PHAR 412	Pharmacy Practice III	3
& PHAR 463	and Pharmaceutical Care Lab III	
PHAR 460	Pharmaceutical Care Lab II	1
PHAR 505	Pharmacy Practice IV	4
& PHAR 560	and Pharmaceutical Care Lab IV	
PHAR 506	Pharmacy Practice V	3
PHAR 514E	Case Studies in Pharmaceutical Ethics	3

PHAR 550	Drug Literature Eval	2
PHAR 559	Public Health and Pharmacoeconomics	3
3 credits of elective courses. Please see your advisor for courses that will complete this requirement.		3
<b>Total Hours</b>		<b>31</b>

Minimum Required Grade: C-

### **Introductory and Advanced Pharmacy Practice Experiences (IPPE and APPE)**

<b>Code</b>	<b>Title</b>	<b>Hours</b>
<b>Complete all of the following courses:</b>		
PHAR 480	Community Pharmacy IPPE	3
PHAR 481	Hospital Pharmacy IPPE	3
PHAR 579	Community Pharmaceutical APPE	6
PHAR 580	Hospital Pharmacy APPE	6
PHAR 581	Inpatient APPE	6
PHAR 582	AMB Care APPE	6
<b>Complete 18 credits of the following courses:</b>		<b>18</b>
PHAR 583	Drug Information APPE	
PHAR 584	Specialized Services APPE	
PHAR 585	Geriatric APPE	
PHAR 586	Clinical Specialty APPE	
PHAR 587	Administrative APPE	
PHAR 588	Research APPE	
PHAR 589	Education APPE	
<b>Total Hours</b>		<b>48</b>

Minimum Required Grade: C-