

# CHEMISTRY B.S. - PHARMACOLOGY

## Bachelor of Science - Chemistry; Pharmacology Concentration

### General Education Requirements

Information regarding these requirements can be found in the General Education Section (<http://catalog.umt.edu/academics/general-education-requirements/>) of the catalog.

### Summary

Code	Title	Hours
Lower-Division Core Courses		53
	General Chemistry	
	Organic Chemistry	
	Biology	
	Computer Science	
	Physics	
	Mathematics	
Upper-Division Core Courses		40
	Analytical Chemistry	
	Physical Chemistry	
	Microbiology	
	Biochemistry	
	Pharmacology	
<b>Total Hours</b>		<b>93</b>

Degree Specific Credits: 93

Required Cumulative GPA: 2.0

### Lower-Division Core Courses

#### General 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
<b>Total Hours</b>		<b>10</b>

Minimum Required Grade: C-

#### Organic Chemistry

Code	Title	Hours
<b>Complete all of the following courses:</b>		
CHMY 221	Organic Chemistry I	3
CHMY 222	Organic Chemistry I Lab	2
CHMY 223	Organic Chemistry II	3
CHMY 224	Organic Chemistry II Lab	2
<b>Total Hours</b>		<b>10</b>

Minimum Required Grade: C-

#### Biology

Code	Title	Hours
<b>Complete all of the following courses:</b>		
BIOB 160N	Principles of Living Systems	3
BIOB 161N	Principles of Living Systems Lab	1
BIOB 260	Cellular and Molecular Biology	4
BIOB 272	Genetics and Evolution	4
<b>Total Hours</b>		<b>12</b>

Minimum Required Grade: C-

#### Computer Science

Code	Title	Hours
<b>Complete the following course:</b>		
CSCI 125	Computation in the Sciences	3
<b>Total Hours</b>		<b>3</b>

Minimum Required Grade: C-

#### Physics

Code	Title	Hours
<b>Complete all of the following courses:</b>		
PHSX 215N & PHSX 216N	Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus	5
PHSX 217N & PHSX 218N	Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus	5
<b>Total Hours</b>		<b>10</b>

Minimum Required Grade: C-

#### Mathematics

Code	Title	Hours
<b>Complete all of the following courses:</b>		
M 171	Calculus I	4
M 172	Calculus II	4
<b>Total Hours</b>		<b>8</b>

Minimum Required Grade: C-

### Upper-Division Core Courses

#### Analytical Chemistry

Code	Title	Hours
<b>Complete all of the following courses:</b>		
CHMY 311	Analytical Chemistry-Quantitative Analysis	4
CHMY 421	Advanced Instrument Analysis	4
<b>Total Hours</b>		<b>8</b>

Minimum Required Grade: C-

**Physical Chemistry**

Code	Title	Hours
<b>Complete the following course:</b>		
CHMY 373	Physical Chemistry-Kinetics & Thermodynamics	4
<b>Total Hours</b>		<b>4</b>

Minimum Required Grade: C-

**Microbiology**

Code	Title	Hours
<b>Complete all of the following courses:</b>		
BIOM 360	General Microbiology	3
BIOM 361	General Microbiology Lab	2
<b>Total Hours</b>		<b>5</b>

Minimum Required Grade: C-

**Biochemistry**

Code	Title	Hours
<b>Complete all of the following courses:</b>		
BCH 480	Advanced Biochemistry I	3
BCH 482	Advanced Biochemistry II	3
BCH 486	Biochemistry Research Lab	3
<b>Total Hours</b>		<b>9</b>

Minimum Required Grade: C-

**Pharmacology**

Code	Title	Hours
<b>Complete all of the following courses:</b>		
PHAR 421	Medicinal Chemistry I	3
PHAR 422	Medicinal Chemistry II	3
PHAR 443	Pharmacology & Toxicology I	4
PHAR 444	Pharmacology & Toxicology II	4
<b>Total Hours</b>		<b>14</b>

Minimum Required Grade: C-

**Advanced College Writing Requirement**

**Rule:** To complete the Advanced College Writing Requirement, Biochemistry students may take the following courses or any other stand-alone advanced writing course.

Code	Title	Hours
BCH 482	Advanced Biochemistry II	3
BCH 486	Biochemistry Research Lab	3

Minimum Required Grade: C-