## Pharmacy

Department Information

- Department Location:

123 Sudro Hall

- Department Phone: 701-231-7456
- Department Web Site: www.ndsu.edu/pharmacy/ (http://www.ndsu.edu/pharmacy/)
- Credential Offered: B.S.; Pharm.D.
- Sample Program Guide: catalog.ndsu.edu/programs-study/undergraduate/pharmacy/ (http://catalog.ndsu.edu/programs-study/undergraduate/pharmacy/)


## Major Requirements

## Major: Pharmaceutical Sciences (Includes Pre-Pharmacy) Requirements

## Degree Type: B.S

Minimum Degree Credits to Graduate: 127-136

## University General Education Requirements

| Code | Title | Credits |
| :---: | :---: | :---: |
| Communication (C) |  | 12 |
| ENGL 110 | College Composition I |  |
| ENGL 120 | College Composition II |  |
| COMM 110 | Fundamentals of Public Speaking |  |
| Upper Division Writing ${ }^{\dagger}$ |  |  |
| Quantitative Reasoning (R) ${ }^{\dagger}$ |  | 3 |
| Science and Technology (S) ${ }^{\dagger}$ |  | 10 |
| Humanities and Fine Arts (A) ${ }^{\dagger}$ |  | 6 |
| Social and Behavioral Sciences (B) ${ }^{\dagger}$ |  | 6 |
| Wellness (W) ${ }^{\text {+ }}$ |  | 2 |
| Cultural Diversity (D) ${ }^{\text {* }}$ |  |  |
| Global Perspectives (G) ${ }^{\text {* }}$ |  |  |

Total Credits

* May be satisfied by completing courses in another General Education category
$\dagger \quad$ General education courses may be used to satisfy requirements for both general education and the major, minor, and program emphases, where applicable. Students should carefully review major requirements to determine if specific courses can also satisfy these general education categories.

A list of university approved general education courses and administrative policies are available here (http://catalog.ndsu.edu/past-bulletin-archive/2022-23/academic-policies/undergraduate-policies/general-education/\#genedcoursestext).

## Pre-Pharmacy Requirements

## DEGREE NOTES:

- Student admitted to the Pharm.D. program will earn a Bachelor of Science Degree with a major in Pharmaceutical Sciences with successful completion of all courses through the second year of the professional Pharm.D. program as well as undergraduate graduation requirements including general education
- Selected Core Courses - see information below for grading and GPA information.

| Code | Title |
| :--- | :--- | ---: |
| BIOL 150 | General Biology I |
| $\& 150$ L | and General Biology I Laboratory * |


| $\begin{aligned} & \text { BIOL } 151 \\ & \& 151 \mathrm{~L} \end{aligned}$ | General Biology II and General Biology II Laboratory * | 4 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { BIOL } 220 \\ & \& 220 \mathrm{~L} \end{aligned}$ | Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory (May satisfy general education category S) * | 4 |
| $\begin{aligned} & \text { BIOL } 221 \\ & \& 221 \mathrm{~L} \end{aligned}$ | Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory (May satisfy general education category S) | 4 |
| $\begin{aligned} & \text { CHEM } 121 \\ & \& 121 \mathrm{~L} \end{aligned}$ | General Chemistry I and General Chemistry I Laboratory (May satisfy general education category S) * | 4 |
| $\begin{aligned} & \text { CHEM } 122 \\ & \& 122 L \end{aligned}$ | General Chemistry II and General Chemistry II Laboratory (May satisfy general education category S) * | 4 |
| CHP 190 | Critical Thinking, Academic, and Professional Skills for the Health Professions | 3 |
| COMM 110 | Fundamentals of Public Speaking * | 3 |
| COMM 216 | Intercultural Communication (May satisfy general education category B and D) * | 3 |
| ECON 201 | Principles of Microeconomics (May satisfy general education category B and G) * | 3 |
| ENGL 120 | College Composition II* | 3 |
| MATH 146 | Applied Calculus I (May satisfy general education category R) * | 4 |
| MICR 460 | Microbial Pathogenesis | 3 |
| PHYS 211 | College Physics I | 3 |
| STAT 330 | Introductory Statistics (May satisfy general education category R)* | 3 |
| Biochemistry - select from below: ${ }^{1}$ |  | 5 or 6 |
| BIOC 460 <br> \& BIOC 461 | Foundations of Biochemistry and Molecular Biology I and Foundations of Biochemistry and Molecular Biology II |  |
| PSCI 301 | Biochemistry and Molecular Biology for Pharmacists (Limited to Early Admission Pathway (EAP) students) |  |
| Organic Chemistry - select from below: ${ }^{1}$ |  | 5 or 7 |
| CHEM 341 \& 341L <br> \& CHEM 342 | Organic Chemistry I and Organic Chemistry I Laboratory and Organic Chemistry II ${ }^{*}$ |  |
| PSCI 300 | Pharmaceutical Organic Chemistry (Limited to Early Admission Pathway (EAP) students) |  |
| Microbiology - select from below: * |  | 3 or 5 |
| $\begin{aligned} & \text { MICR } 202 \\ & \& 202 L \end{aligned}$ | Introductory Microbiology and Introductory Microbiology Lab * |  |
| MICR 350 <br> \& 350L | General Microbiology and General Microbiology Lab * |  |
| Upper Division Writing - select from below ${ }^{1}$ |  | 3 |
| $\begin{aligned} & \text { ENGL } 324 \\ & \text { or ENGL } 325 \end{aligned}$ | Writing in the Sciences (May satisfy general education category C) Writing in the Health Professions |  |
| PHRM 324 | Writing and Professionalization in Pharmacy (Limited to Early Admission Pathway (EAP) students) |  |

Professional Pharmacy P1 \& P2 Years
Curricular plan based on traditional admissions path or early acceptance path. Consult adviser for additional information.

## Selected Core Courses

Selected core courses will be used for selection criteria to determine GPA used in calculation for admission to the professional program. These courses must show evidence of letter grade, or other means of demonstrating acceptable competency (i.e. AP - CEEB) and MUST be completed by the end of fall semester prior to the admissions deadline to apply to the pharmacy program. Remaining courses, which are required and listed in the pre-pharmacy curriculum, MUST be completed by the end of spring term. The only exception to this is that up to six credits of electives may be completed during the summer term.

## Pre-Professional Pharmacy Requirements and Notes

- All courses listed for pre-pharmacy must be complete in order to apply for the professional program in the last spring semester in which prerequisite courses are taken.


## Degree Requirements and Notes

- All required courses must be completed with a grade of ' $C$ ' or above.
- All students must maintain a semester GPA of 2.0 or above for each semester in the College. A student who fails to meet this standard for two successive or three non-successive semesters may be terminated from enrollment in the College of Health Professions.

