

**NDSU** NORTH DAKOTA  
STATE UNIVERSITY

STUDENT FOCUSED • LAND GRANT • RESEARCH UNIVERSITY

# What is a Pharmacist?

- A pharmacist is a drug therapy expert who works with physicians, dentists and veterinarians to help ensure the effective, safe, and cost-effective use of medications for patients.
- Some pharmacists may also specialize in disease state management, pharmaceutical research, education, or in marketing and sales of particular medications for a company.
- Many in this field work in hospitals, clinics, nursing homes, or community pharmacy settings taking care of the medication needs of patients.
- They are specialists in their knowledge of medications, their appropriate use, and must always be furthering their education in this area since new medications are developed all the time.

# Admission to the Pharm.D. Program

- There are two routes for aspiring high school students to pursue admission to NDSU's Pharm.D. program.
- Option 1: The Early Admission Pathway
- Option 2: The Traditional Admissions Pathway

# Early Admission Pathway (EAP) to NDSU's Pharm.D. Program

- **An early assurance program designed for academically qualified high school students who want an affordable, expedited path to a Pharm.D. degree**
- **Apply during your senior year in high school**
- **Conditionally accepted to the Pharm.D. program**
  - **As long as you meet the requirements, we assure that you have a seat in our professional P1 cohort**
  - **You must complete all requirements to maintain your spot**
- **If you meet program requirements, it is 6 year path (saves up to 2 years of time in college)**

# Early Admission Pathway (EAP) to NDSU's Pharm.D. Program

- **The curriculum is challenging, but progressive and designed specifically to ensure that you are trained well for NDSU's Pharm.D. program**
- **First year, standard undergraduate, pre-professional courses**
  - Pay standard undergraduate tuition
- **Second year, start transition into the professional Pharm.D. program as you complete your pre-professional requirements**
  - Pay differential pharmacy tuition
- **Next 4 years: Traditional Pharm.D. program**
  - Pay differential pharmacy tuition.

# Early Admission Pathway (EAP) Two Year Pre-Pharmacy Curriculum

## NDSU ENTRY-LEVEL PHARM. PROGRAM Early Admission Pathway Pre-Pharmacy Curriculum

### Two Year Track (4 Semesters)

FIRST YEAR (43 credits)			
FALL	Cr	SPRING	Cr
Biol 150/150L, General Biology I/Lab *	3/1	Biol 151/151L, General Biology II/Lab *	3/1
Chem 121, General Chemistry I *	3	Chem 122, General Chemistry II *	3
Chem 121L, General Chemistry I Lab	1	Chem 122L, General Chemistry II Lab	1
English 120, Comp II <sup>1</sup>	3	Comm 110, Fundamentals *	3
Math 146, Applied Calculus I *	4	Econ 201, Microeconomics *	3
CHP 190, Critical Thinking	2	Stat 330, Introductory Statistics *	3
	17		17

**SUMMER SESSION** – PCAT Exam  
If necessary, Humanities and Fine Arts, 6 Credits

<sup>1</sup> Students who complete English 120 with a "C" or higher will receive credit for English 110 with a passing grade (P).

SECOND YEAR (35 credits)			
FALL	Cr	SPRING	Cr
PSCI 300, Pharmaceutical Organic Chemistry	5	PSCI 301, Biochemistry and Molecular Biology for Pharmacists	5
Biol 220/220L, Human Anat & Physio I *	3/1	Biol 221/221L, Human Anat & Physio II	3/1
Comm 216, Intercultural Comm *	3	PHRM 324, Professionalism in Pharmacy (with Pharmacy Interviews)	3
Micr 202/202L or 350/350L <sup>φ</sup>	2/1	Micr 460, Pathogenic Microbiology	3
Wellness	2	Phys 211, College Physics I	3
	17		18

<sup>φ</sup> Students who complete Microbiology 350 and 350L take an additional two credits of coursework. These students would then complete 19 credits during this semester.

(ALL courses must be completed with at least a grade of "C.")

# Admission to the EAP - Pharm.D. Program

## ➤ High School Performance

- ACT/SAT composite scores (Primary Criterion)

**Note: if you did not take the ACT, we may substitute another standardized test as long as it was completed in your sophomore, junior, or senior years in high school.**

- Sub-section scores (Secondary Criterion)
- High School GPA (Secondary Criterion)



# Admission to the EAP - Pharm.D. Program

- **Competitive applicants have ACT/SAT (or other standardized test) composite scores in the top 25% nationally and high school GPAs of 3.50 or higher**
- **55-65 students will be accepted into this program annually**



# Admission to the EAP - Pharm.D. Program

- **Once accepted, students must:**
- **Complete all required classes with grades of “C” or higher**
- **Keep a cumulative GPA above 3.00 (most students have GPAs above 3.40)**
- **Complete the PCAT at the end of your first year of college with a minimum score threshold**
- **Complete all Interview Day activities with minimum scores**

# Admission to the Traditional Admission Pathway to the Pharm.D. Program

- **Each year, the Pharmacy Admissions Committee will accept 20-30 students through a traditional pathway.**
- **Beneficial for students**
  - **with certain family financial situations**
  - **who switch from other majors on campus to pharmacy**
  - **who want to earn a minor or study abroad**
- **Three years of traditional, pre-professional coursework**
  - **Standard undergraduate tuition, take standard undergraduate courses instead of unique EAP courses.**

# Traditional Admission Pathway Three Year Pre-Pharmacy Curriculum

## NDSU ENTRY-LEVEL PHARM.D. PROGRAM Pre-Pharmacy Curriculum 2018-2019

Three year track. Allows room for a minor of study. (6 Semesters; 104 credits which includes 3 cr. for Engl 110)

FIRST YEAR (33 credits)			
FALL	Cr	SPRING	Cr
Biol 150/150L, General Biology I/Lab *	3/1	Biol 151/151L, General Biology II/Lab *	3/1
Chem 121, General Chemistry I *	3	Chem 122, General Chemistry II *	3
Chem 121L, General Chemistry I Lab	1	Chem 122L, General Chemistry II Lab	1
English 120, Comp II <sup>1</sup>	3	Comm 110, Fundamentals *	3
Math 146, Applied Calculus I *	4	Elective – Humanities & Fine Arts	3
CHP 190, Critical Thinking & Academic Success	2	Wellness	2
	17		16

<sup>1</sup> Students with composite ACT scores of 20 or lower must register for English 100 and 110 Fall Semester and take Engl 120 Spring Semester. Students who complete English 120 with a "C" or higher will receive credit for English 110 with a passing grade (P).

SECOND YEAR (33 credits)			
FALL	Cr	SPRING	Cr
Biol 220/220L, Human Anat & Physio I *	3/1	Biol 221/221L, Human Anat & Physio II	3/1
Chem 341, Organic Chemistry I *	3	Chem 342, Organic Chemistry II	3
Chem 341L, Organic Chemistry I Lab	1	Econ 201, Microeconomics *	3
Comm 216, Intercultural Comm *	3	Phys 211, College Physics I	3
Elective – Humanities & Fine Arts	3	Credits towards Minor	3
Credits towards Minor	3		
	17		16

THIRD YEAR (35 credits)			
FALL	Cr	SPRING	Cr
Bloc 460, Biochemistry I	3	Bloc 461, Biochemistry II	3
Micr 350/350L or 202/202L *	3/2	Engl 324 or 325, Upper Division English	3
Stat 330, Introductory Statistics *	3	Micr 460, Pathogenic Microbiology	3
Credits towards Minor	6	Credits towards Minor	9
	17		18

\*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 December 31 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.

(ALL courses must be completed with at least a grade of "C.")

# Admission to the Traditional Admission Pathway to the Pharm.D. Program

- **Apply during the third undergraduate year**
- **Selected Grade Point Average (GPA)** in college-level, core courses (minimum is 3.0)
- **PCAT**
- **Interview Day Activities**

# Admission to the Traditional Admission Pathway to the Pharm.D. Program

- Average GPA in select Pre-Pharmacy courses  
(approximately 3.65 for traditional pathway applicants)
- PCAT composite percentile  
(approximately the 65<sup>th</sup> percentile for traditional pathway applicants)
- Interview  
  
(up to 50 qualified applicants will be selected for interviews each year)

# Admission to the Traditional Admission Pathway to the Pharm.D. Program

- Admission applications are available on-line through Pharm-CAS by November 1 each year.
- PharmCAS fees apply
- Additional application fee for the Pharm.D. program is \$125.





# Final Four Years to the Pharm.D.

- Upon acceptance, students complete four years of courses professional program (at least 110 credits):
  - Year 1: pathophysiology, pharmaceuticals and kinetics
  - Year 2: drug dynamics/pharmaceutical care
  - Year 3: drug dynamics/pharmaceutical care, pharmacy management, public health pharmacy, practice improvement, and complex patient care
  - Year 4: advanced pharmacy practice rotations, or APPE (40 weeks, 8 rotations).
- Students are exposed to actual pharmacy practice each year of the professional program curriculum, the concept laboratory courses and IPPE/APPE rotations.



# Demand for Graduates

- Employment rate for graduates (within a few weeks of graduation) for students in the College average 92% according, to the 2014 employment report by the NDSU Career Center (<http://www.ndsu.edu/fileadmin/career/2014annualreport.pdf>).
- U.S. Department of Labor's Bureau of Labor Statistics job opportunities in pharmacy are expected to **grow faster than average**.
- \*Average Salary: \$121,510
  - Salaries will vary depending on whether you practice in a clinical setting, a community setting, a rural community or an urban community.

\* U.S. Bureau of Labor Statistics, May 2019 National Occupational Employment and Wage Estimates; [http://www.bls.gov/oes/current/oes\\_nat.htm#29-0000](http://www.bls.gov/oes/current/oes_nat.htm#29-0000). All estimates use annual mean wages.

# Costs of Education

- NDSU remains one of the most affordable places to earn a Pharm.D. degree. For the traditional academic year:
  - In-State Undergraduate Tuition: **\$8,606**
  - In-State Differential Pharmacy Tuition: **\$17,404**
    - Applies to any year students are assessed differential tuition.
  - Tuition for MN residents is only slightly higher than in-state
- Compare to the University of Minnesota-Twin Cities for a traditional academic year:
  - In-State Undergraduate Tuition: **\$13,318**
  - In-State Differential Pharmacy Tuition for years 1-3: **\$27,864**
  - In-State Differential Pharmacy Tuition for the final year: **\$41,796**

Sources: <https://www.pharmacy.umn.edu/degrees-and-programs/doctor-pharmacy/admissions/costs-aid>

# Costs of Education

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  - In-State Differential Pharmacy Tuition: \$17,404
    - Applies to any year students are assessed differential tuition.
  - Tuition for MN residents is only slightly higher than in-state
  
- Compare to the University of South Dakota State University for a traditional academic year:
  - In-State Undergraduate Tuition: \$7,697
  - In-State Pharmacy Tuition/Program Fees for years 1-3: \$18,281
  - In-State Pharmacy Tuition/Program Fee for the final year:  
\$27,423

# How to Apply

- For Traditional Pathway applicants, simply apply to study as an undergraduate at NDSU and declare a “pre-pharmacy” major.
  - See: <https://www.ndsu.edu/admission/apply>
  - Complete PharmCAS application your junior year in college
- For Early Admission Pathway applicants, apply to study as an undergraduate at NDSU.
  - See: <https://www.ndsu.edu/admission/apply>
  - Complete NDSU’s EAP application as a senior in high school. The link to the application is:  
[https://ndstate.co1.qualtrics.com/jfe/form/SV\\_eCE5qqZdujYIS0t](https://ndstate.co1.qualtrics.com/jfe/form/SV_eCE5qqZdujYIS0t)