



NDSU

SCHOOL OF PHARMACY

PHARMACY HANDBOOK 2021-2022

Last revision 7/13/2021

TABLE OF CONTENTS

| | |
|--|----|
| Introduction | 3 |
| General FAQ | |
| Academic Advisors | 4 |
| Credits | 4 |
| - - Credit Limit, Transfer, Challenge, College Entrance Examination Board (CLEP) | |
| Degrees (Curriculum Requirement)..... | 5 |
| General Education Requirements..... | 5 |
| Grades and Academic Status | 5 |
| - - G.P.A., Retakes, Current Competency | |
| Major/Minor..... | 6 |
| Entry-Level Degrees | 6 |
| Minors of Study..... | 7 |
| Registration | 7 |
| Withdraw to Zero Credits | 7 |
| Other Questions | 7 |
| Where to Go for Help | 8 |
| CHP Policies & Regulations | 10 |
| Student Career Commitment Statement..... | 10 |
| Student Academic and Conduct Standards Policy 3.01 | 11 |
| Right to Terminate Enrollment Policy 3.03..... | 15 |
| Status Documentation Policy 3.06..... | 15 |
| Health Insurance Policy 3.07 | 16 |
| Criminal Background Check Policy 3.08 | 16 |
| Professional Dress Policy 3.09 | 16 |
| Student Technical Standards Policy 3.10 | 16 |
| Substance Misuse Testing Policy 3.14 | 18 |
| School of Pharmacy Policies | 19 |
| Pre-Pharmacy and Professional Pharmacy Majors..... | 19 |
| Workload Statement | 19 |
| Repetition of Pre-Pharmacy Core Courses Policy 2.21.1 | 20 |
| Current Competency in Coursework Policy 2.28 | 20 |
| Academic Remediation and Repetition of Professional Pharmacy Courses 3.20 | 20 |
| Minimum Grade Requirement for Pharmacy Coursework Policy 3.21 | 21 |
| Prerequisites for Professional Courses Policy 3.23 | 21 |
| Professional Electives Policy 3.26 | 21 |
| Student Complaint Policy 3.28..... | 23 |
| Student Technical Standards Policy 3.29 | 25 |
| Examination Administration Policy 3.30..... | 27 |
| Intern License Policy 3.31 | 29 |
| Professional Liability Insurance Policy 3.32..... | 30 |
| Certifications..... | 30 |
| Health Vaccines (Exposure to Biohazard) | 30 |
| Scholarships and Awards | 32 |
| Technology Requirements for Pharmacy Students..... | 35 |
| Tuition..... | 34 |
| Pre-Pharmacy Students | |
| Pre-Pharmacy Curriculum (EAP & three year track)..... | 35 |
| Admissions Policy..... | 37 |
| Professional Students | |
| PharmD. Educational Outcomes | 38 |
| Pharm.D. Course Descriptions and Prerequisites..... | 52 |
| Pharm.D. Curriculum | 57 |
| Experiential Program (IPPE & APPE)..... | 58 |
| Post Graduate Residency FAQs..... | 60 |
| Pharm.D./MBA Option | 62 |
| Master of Public Health Program | 64 |
| Pharm.D./MPH Option | 64 |
| Pharm.D./Ph.D. Option..... | 69 |
| Pharmacy Student Activities & Organizations | 72 |

INTRODUCTION

August 2021

Welcome to the College of Health Professions. We are excited that you are a student in our professional program and I want to provide for you some information that I hope will be of assistance to you during your academic journey with us.

A very important person during your time with us is your advisor. This individual is available to assist you in planning your program of studies and answer questions about future career options. I urge you to meet regularly with your advisor especially if you have any questions, concerns or need help with any academic, College, or campus issues. Faculty and staff are prepared to work with you on an individual basis and help guide you through your journey with us. Additional career information can also be found in our Administrative Offices in Fargo - Sudro 123 and by attending our Annual Career Fair in September.

The professional curriculum is designed to challenge you and to teach you to become an independent learner and to work in collaborative interprofessional healthcare teams. Therefore, students are expected to take a very active role in their education and take responsibility for their own learning. Student active learning is a major emphasis of our program. You will be asked to apply your knowledge, dig for the answers to questions, communicate both verbally and in writing, critically think and problem-solve through case discussions, practice team-based care with students from other disciplines, and participate in numerous experiential activities. I encourage you to ask questions in class and to learn by understanding and applying the material presented rather than by simply memorizing factual information. The goal of our curriculum is for you to achieve the necessary life-long learning skills which will become important to you in your future career as a health professional to be able to “keep up” with the plethora of new information associated with our rapidly changing health care system. Your ultimate success will be determined by the amount of effort you are willing to put into your academic studies. So work hard and give your best effort in all that you do. If you give us your best, you will receive the best in your educational experience with us. It will also be important that you learn more than just the technical skills of practicing in your discipline but that you also learn what it means to become a health professional and practice professionalism in every and all situations. You will need to learn how to practice ethically, responsibly, with honesty, integrity, and good moral character and treating others (especially your patients) with compassion, caring, understanding, and respect which is expected of any health professional. These will be the keys to your future success as a health professional.

We desire to provide a positive learning environment for all students here within the College and we strive to continually improve our program. Students are a very important part of this process and we actively solicit your input and active participation through various formats. Students are elected from each class to serve on the Dean's Student Liaison Committee. This committee meets with the Senior Associate Dean throughout the year to bring student concerns to the attention of the administration. In addition, the College holds a Deans' Open Forum each semester to allow students an opportunity to interact directly with the Dean (and his administrative leadership team) on matters of interest and concern to students. And I also want you to know that my door is always open to you, so please don't hesitate to stop by my office if you need my assistance for anything. We encourage you to use these sources as well as visits with faculty, or any of the members of the staff in our Administrative Offices whenever you have issues that need to be brought to our attention. In addition, I encourage you to become actively involved with your profession by joining one of our student professional organizations. This is a great way to learn about what's going on within your profession and begin contributing to the advancement of your future professional career and practice.

This “Handbook” is devoted to academic information to help enhance student success within our program. We hope you find it helpful to you. I wish you much success in your educational pursuits with us and in your later professional practice.

Best wishes to you for a successful year!

Charles D. Peterson, Pharm.D.
Dean, NDSU College of Health Professions

GENERAL FAQ

AN INFORMAL GUIDE: *The following is a series of informal responses to questions most frequently asked about rules and procedures at NDSU. For further information, please refer to the current NDSU Bulletin (www.ndsu.edu/bulletin/), your adviser, Administrative Office in Sudro 123, the Office of Registration & Records in Ceres 110, or One Stop in the Memorial Union.*

ACADEMIC ADVISORS

Who is my advisor? Pre-pharmacy students should reach out to pre-pharmacy advisor Kelly Haugen Friesner. Students in the professional pharmacy program are assigned an advisor. It is important to meet with your advisor on a regular basis to receive updated curricular information. Advisors help students learn how to complete the registration procedures. **Students are responsible for the course and program selections which they make.** However, an advisor is a valuable source for acquiring information about the advisability of student choices. *(If you desire a change of advisor, please contact the Senior Associate Dean, School of Pharmacy, 231-7601.)*

Do I need to see my advisor about my semester schedule? Yes, make an appointment with your advisor during advising week to plan your schedule of classes. Dates for advising and registration are available on the Office of Registration & Records web site (www.ndsu.edu/registrar) and "The Spectrum," published twice per week when full semester classes are in session.

CREDITS

How many credits do I need to be a Sophomore, a Junior and a Senior? You need 27 credits to be classified as a Sophomore, 60 credits to be classified as a Junior, and 90 credits to be classified as a Senior. To graduate, you must successfully complete all general education requirements, the requirements in your major, and with a minimum of 2.0 grade point average. A complete list of University requirements for graduation is in the current NDSU Bulletin.

What is the limit on the number of credits I can take per semester? Full-time students will carry from 15 to 19 credits per Semester. Registration for more than 20 credits is not recommended. Special permission from your adviser and a grade point average of at least 3.0 are required to register for more than 20 credits. You must obtain a "Petition to Enroll in More Than 20 Credits" form under the link, "Over 20 Credits Petition," at www.ndsu.edu/registrar/forms.

How many credits will I lose when I transfer to NDSU from another school? Ordinarily you shouldn't lose any. However, a "D" grade in any course does not transfer to the College of Health Professions. Some technical courses may not fit your degree program and in this case some extra work may be required. For evaluation of transfer credit see current NDSU Bulletin.

How many credits can I transfer from a junior or community college? All college-level credits from regionally accredited institutions transfer; however, not all may apply to the particular degree program you have selected. To obtain a baccalaureate degree you must complete at least 60 semester credits at a four-year college or university. At least the last 37 of these credits must be at the junior or senior level. (See current Bulletin.)

How do I challenge a course? A student who is currently registered may seek credit by challenging a course. A course challenge usually consists of a special comprehensive examination; however, additional types of performance may be required for some courses. A course challenge is only permitted for courses in which the student has not received transfer credit or has no previous academic record. Prior registrations are allowable if course was dropped prior to the No Record Drop deadline in a given term. Student must be registered at NDSU during the semester in which you wish to challenge a course (see current NDSU Bulletin for complete descriptions). Procedures for pursuing a course challenge may be found at: www.ndsu.edu/fileadmin/registrar/forms/challenge.pdf

Is it possible to obtain college credits by taking examinations of the College Entrance Examination Board (CLEP and AP)? Yes. Students may demonstrate evidence of college-level achievement through the use of nationally standardized tests. Competency to write these examinations may have been gained through intensive preparation in high school, extensive reading in a particular field, or other types of formal or informal preparation. A student may not repeat by proficiency testing a course that has been previously taken or failed at NDSU or another accredited institution. Score reports must be sent directly to NDSU from the awarding agency/board. School reports and student-issued grade reports are not considered official for purposes of awarding credit by examination.

DEGREES (CURRICULUM REQUIREMENT)

How do I petition for a waiver or substitution of a curriculum requirement? To petition, you must obtain a "Request to Waive or Substitute Courses" form under the link, "Substitute/Waive a Course" at www.ndsu.edu/registrar/forms. In this petition, which is presented to the Academic Affairs Committee of the College of Health Professions, you state exactly why you think you should have a waiver. The Committee will review your petition and you will be notified of their decision. (Petitions should be submitted only when special circumstances make it virtually impossible for you to meet the regular degree requirements.) **Only departmental and college requirements may be waived. University requirements may not be waived.**

GENERAL EDUCATION REQUIREMENTS

Who must complete the General Education Requirements? The General Education Requirements apply to all students.

What are the General Education Requirements? The General Education Requirements are listed in the current NDSU Bulletin. A list of the courses approved for the different categories is provided at www.ndsu.edu/registrar/academics/gened.

General Education transfer with the ND University System. Students who plan to transfer from one institution to another in the ND University System should check with Office of Registration & Records in Ceres 110 or One Stop in the Memorial Union.

GRADES AND ACADEMIC STATUS

What is the G.P.A.? Grade Point Average. For each credit of "A" you receive four (4) honor points; three (3) for each credit of "B"; two (2) for each credit of "C"; one (1) for each credit of "D"; and zero (0) for each credit taken in which a grade of "F" is received. The GPA is computed by dividing the total number of honor points earned at NDSU by the total number of credit hours in which honor points were recorded. For example, a person with a G.P.A. of 3.00 has a grade average of "B." The minimum GPA of 2.00 is required for graduation. Developmental courses do not count toward graduation requirements.

If I do not do well in a course, may I take it over again? Yes. The second grade, whether higher or lower, will replace the first grade in computing the GPA. Both grades are listed on your Permanent Record. **To replace a grade for a course taken at NDSU, that course MUST be repeated at NDSU. The one exception is that NDSU students may register for a Tri-College course to repeat a course previously taken at NDSU.**

NOTE: PROFESSIONAL COURSES IN THE PHARMACY PROGRAM - please refer to Policy #3.20, *Academic Remediation and Repetition of Professional Courses, in the College Policy Manual.*

NOTE: PRE-PHARMACY CORE COURSES, Policy #2.21.1 - *The total number of pre-pharmacy core courses which may be repeated shall be limited to three. The grade received during the student's final attempt for any core pre-pharmacy course will be used in evaluation for admission. A withdrawal is not considered an attempt. A core course is one that is included in the GPA for admission purposes.*

CURRENT COMPETENCY, Policy #2.28 - *Coursework in the areas of science and mathematics must be no more than seven years old at the time of application to the professional program. Coursework presented in these areas that is older than seven years must have current competency demonstrated. Current competency may be demonstrated by a) retaking a portion of the series in question, i.e. 122 of*

121/122 Chem series; b) enrolling in a formal audit that is indicated on a student's official transcript; c) challenging coursework through the department in question; or d) meeting with faculty in the areas of Science or Mathematics and having them determine current competency. Students who intend to meet current competency requirements using item c or d must receive approval from the Chair of Pharmacy Admissions Committee prior to undertaking the current competency. (This coursework does not fall under the rule, "Repetition of Pre-Pharmacy Core Courses.")

Will I receive mid-term grades? Upon request, all instructors shall inform students directly of their approximate mid-term grades before the end of the eighth week of the semester.

MAJOR/MINOR

How do I change my major? Occasionally students find they are not suited for a particular field. If you decide to change majors while you are a student in the College, you are expected to follow this procedure: discuss it with your adviser, fill out the electronic form "Major/Minor and Adviser Change Form," www.ndsu.edu/registrar/forms. You will be assigned a new adviser in the field in which you will be majoring. Once you select a major, you must transfer to the college that offers the major.

How many credits are required for a Minor? The number of credits required for a minor varies by departments. The minimum number of credits for a minor is 16. To determine the exact number of credits that you will need for a minor, check with your adviser, or in Ceres 110 or One Stop.

ENTRY-LEVEL DEGREES

An entry-level degree is a degree program that a student who has graduated from a U.S. K-12 system and is newly admitted to NDSU can pursue directly out of high school. Entry-level degrees include all bachelor degrees and a selected number of (but not every) professional and/or graduate degrees. The College of Health Professions offers the following entry-level degrees:

Entry-level degrees offered through the College of Health Professions:
Bachelor of Science in Health Services

Entry-level degrees offered through the Department of Allied Sciences:
Bachelor of Science in Medical Laboratory Science
Bachelor of Science in Radiologic Sciences
- Includes sub-plans in:
Sonography
X-ray Technology
Bachelor of Science in Respiratory Care

Entry-level degrees offered through the School of Nursing:
Bachelor of Science in Nursing
- Includes the following programs:
pre-professional BSN program
LPN to BSN program
RN to BSN program

Entry-level degrees offered through the School of Pharmacy:
Doctor of Pharmacy (Pharm.D.)
- Includes the following dual-degree programs:
Pharm.D./MBA: In conjunction with NDSU College of Business.
Pharm.D./MPH: In conjunction with the Department of Public Health
Pharm.D./Ph.D.: In conjunction with the Department of Pharmaceutical Sciences
NOTE: For all dual degree programs students must first be admitted to the Pharm.D. program and fulfill all graduate school requirements prior to beginning coursework for the second degree.

MINORS OF STUDY

What do you recommend? The following is a partial list of minors that may be of interest to pre-pharmacy and pharmacy students. Go to the following web page, <https://www.ndsu.edu/majors/>, and select the program of study from the list.

- Accounting
- Biotechnology
- Business Administration
- Chemistry: The Chemistry Minor is given automatically with the BS in Pharmaceutical Sciences degree.
- Gerontology
- Health Communication
- Microbiology: (*Students interested in a microbiology minor must take Micr 350 and 350L, instead of Micr 202 and 202L.*)
- Psychology – Neuroscience Minor
- Psychology
- Spanish
- Wellness

Curriculum Guides for all Majors and Minors: <https://www.ndsu.edu/registrar/academics/curricula/>

REGISTRATION

How do I register for courses? Students will use the “Campus Connection Student Portal” via the NDSU Home Page in which to register for classes. Students will also use this portal for the following: account information, class list for the semester, course catalog of classes, drop/adds, financial aid information, holds, schedule of classes for the semester, unofficial transcripts, and much more (www.ndsu.edu/onestop/connect).

WITHDRAWING TO ZERO CREDITS

How do I withdraw to zero credits? If you find it necessary to withdraw to zero credits during any semester in which you are enrolled, you must file a completed "Cancellation of Registration/Withdrawing to Zero Credits" form at www.ndsu.edu/registrar/forms and select the link “Withdraw to Zero Credits” (cancellation or registration). Process your withdrawal at One Stop in the Memorial Union, during regular business hours, Monday through Friday. Refer to the University’s official dates and deadlines, www.ndsu.edu/onestop/, for the last day to withdraw. Withdrawals after this date are not processed without evidence of compelling circumstances beyond the student’s control. If you do not want to attend the next semester but are finishing the semester you are presently enrolled in, simply do not register for the next semester.

OTHER QUESTIONS

What if I think a course is of poor quality or an instructor is unfair? Talk with the instructor first. If the situation is not resolved, notify the department chair or the Associate Dean for Academic Affairs in the School of Pharmacy. Such information is important if improvement is to be brought about now or in the future.

Remember that even if changes cannot be made immediately, your comments are taken seriously.

What if I think a course or instructor is exceptionally good? Tell the instructor and notify the department chair and the Associate Dean for Academic Affairs in the School of Pharmacy.

What if I think I have been treated unfairly? Bring your situation to the attention of your advisor, the Department Chair, the Dean of your college, the Senior Associate Dean in the College of Health Professions, or the Associate Dean for Academic Affairs in the School of Pharmacy. You may be advised to prepare a petition for relief from a bad situation or unfair decision.

Can I see the Deans? The Dean of the College of Health Professions is Dr. Charles Peterson. He is eager to meet students and is deeply concerned about the kind of education they receive, as well as problems facing students at NDSU. To set up an appointment with him, contact his assistant at 231-5383. The Dean's Office is in the Administrative Office, Sudro Hall 123.

Dr. Daniel Friesner, Senior Associate Dean, handles student affairs (among other responsibilities) within the College of Health Professions. He is concerned about students and can assist with personal, career and admissions issues. He may be reached at 231-7601, Sudro Hall 123.

Dr. Michael Kelsch, Interim Associate Dean for Academic Affairs, oversees curriculum and assessment activities within the School of Pharmacy. He is concerned about students and can assist with academic and career issues. He may be reached at 231-6528, Sudro Hall 123.

Department Chairs in the Pharmacy Program are: Pharmaceutical Sciences – Dr. Jagdish Singh, 231-7661, Sudro Hall room 136; Pharmacy Practice - Dr. Amy Werremeyer, 231-7603, Sudro Hall 118H.

WHERE TO GO FOR HELP

| TOPIC/PROCEDURE: | SOURCE/CONTACT: | LOCATION: |
|---|--|--|
| Academic Deficiencies | <ul style="list-style-type: none"> • Advisor • Associate Dean for Academic Affairs - Dr. Kelsch • Office of Registration & Records www.ndsu.edu/registrar/ • Current NDSU Bulletin www.ndsu.edu/bulletin/ | Sudro 123 231-6528 Ceres 110 231-7981 |
| Academic Policies | Current NDSU Bulletin www.ndsu.edu/bulletin/ | |
| Add or drop a course | <ul style="list-style-type: none"> • Advisor • Office of Registration & Records www.ndsu.edu/registrar/ | Ceres 110 231-7981 |
| Advanced Placement | <ul style="list-style-type: none"> • The individual departments • Registration & Records www.ndsu.edu/registrar/ • Current NDSU Bulletin www.ndsu.edu/bulletin/ | Ceres 110 231-7981 |
| Appeal for exception to academic regulations | Office of Registration & Records www.ndsu.edu/registrar/ | Ceres 110 231-7981 |
| Appeal a grade | Student Rights & Responsibilities refers to the Grade Appeals Board at: www.ndsu.edu/fileadmin/policy/337.pdf | Memorial Union 250, main level 231-6560 |
| Apply for loan | <ul style="list-style-type: none"> • NDSU Financial Aid and Scholarships www.ndsu.edu/onestop/finaid/loans/ • One Stop www.ndsu.edu/onestop/finaid/loans/ | Memorial Union 176 231-6200 |
| Apply for scholarship | Office of Admission | Ceres 114 231-8643 |
| Career/Job Search (Placement Program) | <ul style="list-style-type: none"> • Career Center, www.ndsu.edu/career/ • Current NDSU Bulletin www.ndsu.edu/bulletin/ | Ceres 306 231-7111 |
| Change Majors within NDSU | eForm through the Office of Registration & Records web site, www.ndsu.edu/registrar/forms - select "Major/ Minor and Adviser Change form" | |
| Check content of courses | Current NDSU Bulletin & Departments www.ndsu.edu/bulletin/ | |
| Check on a grade | <ul style="list-style-type: none"> • Campus Connection Student Portal www.ndsu.edu/onestop/connect/ • Instructor of course | |
| Credit by examination (Challenging a course, PEP or CLEP tests) | <ul style="list-style-type: none"> • Office of Registration & Records www.ndsu.edu/registrar/ • Current NDSU Bulletin www.ndsu.edu/bulletin/ | Ceres 110 231-7981 |
| Disability Services | NDSU Disability Services www.ndsu.edu/disabilityservices/ | Main Library, Suite 17 231-8463 |
| Discuss academic problems | Associate Dean for Academic Affairs - Dr. Kelsch | Sudro 123 231-6528 |
| Discuss personal problems | <ul style="list-style-type: none"> • Senior Associate Dean - Dr. Friesner • Counseling Center www.ndsu.edu/counseling/personal_counseling/ | Sudro 123 231-7601 Ceres 212 231-7671 |

| TOPIC/PROCEDURE: | SOURCE/CONTACT: | LOCATION: |
|------------------------------------|---|---|
| Financial Aid Information | <ul style="list-style-type: none"> NDSU Financial Aid and Scholarships www.ndsu.edu/onestop/finaid/ One Stop www.ndsu.edu/onestop/finaid/ Current NDSU Bulletin www.ndsu.edu/bulletin/ | Memorial Union 176 231-6200 |
| Food Service | NDSU Dining (Residence Dining Center, Union Dining Center, West Dining Center) | Bison Court West 231-7001 |
| General Education Requirements | <ul style="list-style-type: none"> Registration Schedule Current NDSU Bulletin www.ndsu.edu/bulletin/ | Ceres 110 231-7981 |
| Grades & Honor Points | <ul style="list-style-type: none"> Advisor Office of Registration & Records www.ndsu.edu/registrar/ Current NDSU Bulletin www.ndsu.edu/bulletin/ | Ceres 110 231-7981 |
| Graduation Requirements | <ul style="list-style-type: none"> Office of Registration & Records www.ndsu.edu/registrar/ Current NDSU Bulletin www.ndsu.edu/bulletin/ | Ceres 110 231-7981 |
| Health Service | <ul style="list-style-type: none"> NDSU Wellness Center www.ndsu.edu/wellness/ Current NDSU Bulletin www.ndsu.edu/bulletin/ | Wallman Wellness Center, 231-5200 Student Health Service, 231-7331 |
| Housing | <ul style="list-style-type: none"> University Residence Life Office www.ndsu.edu/reslife/ Current NDSU Bulletin www.ndsu.edu/bulletin/ | Bison Court West 231-7557 |
| Major Requirements | <ul style="list-style-type: none"> Advisor This Handbook-see Pharmacy Curriculum Pharmacy Administrative Offices Current NDSU Bulletin www.ndsu.edu/bulletin/ | Sudro 123 231-7601 |
| One Stop | One-stop student service center (assistance from Customer Account Services, Registration & Records and Financial Aid and Scholarships) www.ndsu.edu/onestop/ | Memorial Union 176, main level, 231-6200 |
| Pass/Fail | <ul style="list-style-type: none"> Advisor Current NDSU Bulletin www.ndsu.edu/bulletin/ Office of Registration & Records www.ndsu.edu/registrar/ | Ceres 110 231-7981 |
| Pre-Professional Programs | <ul style="list-style-type: none"> Office of Registration & Records www.ndsu.edu/registrar/ Current NDSU Bulletin www.ndsu.edu/bulletin/ | Ceres 110 231-7981 |
| Registration | <ul style="list-style-type: none"> Office of Registration & Records www.ndsu.edu/registrar/ Campus Connection Student Portal www.ndsu.edu/onestop/connect/ | Ceres 110 231-7981 |
| Remove an Incomplete | Instructor of course | |
| Residence Classification | <ul style="list-style-type: none"> Office of Registration & Records www.ndsu.edu/registrar/ Current NDSU Bulletin www.ndsu.edu/bulletin/ | Ceres 110 231-7981 |
| Resident Assistants & Peer Mentors | Ask at your Residence Hall Office if you don't know your RA or Peer Mentor www.ndsu.edu/reslife/ | |
| ROTC Program - Air Force | <ul style="list-style-type: none"> Bentson-Bunker FieldHouse www.ndsu.edu/afrotc/ | Room 101 231-8186 |
| ROTC Program - Army | <ul style="list-style-type: none"> Bentson-Bunker FieldHouse www.ndsu.edu/armyrotc/ Current NDSU Bulletin www.ndsu.edu/bulletin/ | Room 103 231-7575 |
| Student Organizations | <ul style="list-style-type: none"> Campus Directory College of Health Professions - has 11 pharmacy related students organizations Student Government www.ndsu.edu/sg/ Student Activities Office www.ndsu.edu/studentactivities/ | See Table of Contents Sudro 123 - 231-7601 Memorial Union 128 231-8460 Memorial Union 120 231-7787 |
| Study Abroad Programs | <ul style="list-style-type: none"> International Student and Study Abroad Services www.ndsu.edu/International Current NDSU Bulletin www.ndsu.edu/bulletin/ | Memorial Union 116 231-7895 |
| Study Skills | Education 123 (offered each semester) School of Education www.ndsu.edu/education/ | Main Office FLC 210 231-7921 |
| Summer Study | Current NDSU Bulletin www.ndsu.edu/bulletin/ | |

| TOPIC/PROCEDURE: | SOURCE/CONTACT: | LOCATION: |
|--|---|--|
| Transcript (official) | To request an official transcript www.ndsu.edu/registrar/records/transcripts/ | |
| Tri-College University Office | •Tri-College Downtown Campus Fargo www.tri-college.org | 650 NP Ave Renaissance Hall #110 - 231-8170 |
| Tutor ACE (Academic Collegiate Enhancement) | • Office of TRIO Programs www.ndsu.edu/trio/ • Learning Services/Orientation Coordinator (ACE) www.ndsu.edu/studentsuccess/about_ace/ | Ceres 335 231-8028 West Dining Center room 20 (lower level) 231-5554 |
| Tutor - Math | Math Dept. Tutors and Math Instructors www.ndsu.edu/math | Minard 408 231-8171 |
| University Honors Program | • www.ndsu.edu/honors • Current NDSU Bulletin www.ndsu.edu/bulletin/ | Main Library room 06 231-9616 |
| University Rules & Regulations | Current NDSU Bulletin (see University Policies) www.ndsu.edu/bulletin/ | |
| Veterans Information | Office of Registration & Records www.ndsu.edu/veterans | Ceres 211 231-7985 |
| Withdraw to zero credits | One Stop www.ndsu.edu/onestop/ | Memorial Union 176, main level |
| Writing Skills | • Center for Writers www.ndsu.edu/cfwriters/ • English 110/120 Instructors English Department, www.ndsu.edu/english | Main Library, lower level, 231-7927 Minard 318 231-7143 |

NDSU POLICIES

The School of Pharmacy adheres to all NDSU and College of Health Professions policies. Information on NDSU academic policies can be found here: <https://www.ndsu.edu/policy/>. Students are encouraged to be aware of NDSU Policies 320-348, and 600-612, as they apply directly to all students at NDSU.

COLLEGE OF HEALTH PROFESSIONS POLICIES AND REGULATIONS

Information on all College of Health Professions policies can be found here: https://www.ndsu.edu/fileadmin/healthprofessions/documents/College_of_Health_Professions_Policy_Manual_5.1.2019.pdf. Students are encouraged to be aware of College of Health Professions Policies 3.01-3.15, as they apply directly to all students taking coursework or pursuing a major housed in the College of Health Professions. Some of the more pertinent College of Health Professions policies are provided below.

STUDENT CAREER COMMITMENT STATEMENT

"I understand that the healthcare career I have chosen comes with certain risks that could expose me to potential hazards to my health as a result of working in a healthcare workforce environment including but not limited to hazardous substances, dangerous equipment and supplies, mentally and physically ill patients, and possible exposure to blood and body fluids which may result in exposure to and/or contraction of an infectious disease. I fully understand these risks and accept them as a condition of being a student enrolled in a healthcare field like the Pharm.D. program. I understand that any medical expenses incurred as a result of the training portion of the Pharm.D. program especially in the healthcare workforce environment, are my responsibility. I also understand that it is my personal responsibility to practice good accident and injury prevention measures to reduce my risk of injury or illness including following all prevention and safety guidelines recommended by the College, the healthcare facility, and the Center for Disease Control."

STUDENT ACADEMIC AND CONDUCT STANDARDS POLICY 3.01

Note: Due to changes in College of Health Professions Administration, effective July 1, 2020, the positions of Senior Associate Dean and Associate Dean for Student Affairs and Faculty Development mentioned in this policy are the same individual (Dr. Dan Friesner).

Introduction

The mission of the NDSU College of Health Professions is to educate students and advance research and professional service in pharmacy, nursing, allied sciences, and public health. The College has established professionalism and ethics as two of its core values.

Pharmacists, nurses, allied health care professionals, public health professionals, and pharmaceutical scientists must live up to the high ideals of their profession. Their lives must be guided by the principles of honesty and integrity, in order to ensure that the public can regard their words and actions as unquestionably trustworthy.

To develop an understanding of and respect for these principles of honesty and integrity as applied to the academic work of pharmacy, nursing, allied science, and public health students, the College of Health Professions has developed this student conduct policy. This policy is applicable to anyone enrolled as a student in the College, including those in the pre-professional, professional, and graduate programs. This policy also applies to any student taking a course for credit in the College. Acceptance of this policy is required as a condition of admission to the College.

Academic Standards

The academic standards of the College of Health Professions differ from those of the University. Any student who fails to meet or exceed the University standards may be placed on University probation or suspension (see the current NDSU Bulletin for university information on academic deficiencies).

Semester Grade Point Average (All Students): To be in good academic standing within the College, all undergraduate and professional students shall maintain a semester grade point average of 2.0 or above for each semester enrolled in the College of Health Professions. All graduate students are expected to maintain a 3.0 grade point average as well as any other academic policies outlined by the graduate school.

Any student who fails to attain a semester GPA of 2.0 or above may be placed on College probation. Students who have been placed on academic probation for two (2) consecutive or three (3) non-consecutive semesters shall be suspended from enrollment in the College. After two suspensions, students will be terminated from the College. (Termination from the College does not prohibit the student from registering elsewhere in the University provided the academic standards of the alternate college of registration have been met or exceeded.)

A student who is suspended and desires readmission into the College must file a request for readmittance with the Senior Associate Dean at least 60 days prior to the beginning of the semester in which readmission is sought. In addition, professional students must seek readmission to the professional programs in Pharmacy, Nursing, Allied Sciences, and Public Health through the Admissions Committee of their respective program.

Minimum Grade Requirement (Professional Students): To be in good academic standing within the College, all students enrolled in the professional programs of the College must complete all required courses within the College with a grade of "C" or above. Students are encouraged to refer to program-specific policies related to minimum grade requirements which can be found in the College Policy Manual at www.ndsu.edu/healthprofessions/college_information/policy_manual/. Graduate students are expected to uphold policies and procedures consistent with the graduate school and to maintain a 3.0 grade point average.

Students Enrolled in College Affiliated Educational Training Programs (Professional Students): To be in good academic standing within the College, all students enrolled in College affiliated internships, clinical, or experiential training programs are also required to uphold the academic standards of that affiliate and will be subject to the terms of probation, suspension, and termination of the affiliated program. Students failing to meet affiliated program academic standards may also lead to termination from the College.

Conduct Standards

High standards of professional conduct are expected from all students, both to facilitate the learning of all students and to promote professional values. Individuals are expected to represent the College, professional program, or profession in a positive, professional manner. Students conducting clinical experiences, rotations, and/or internships must also uphold the specific policies of their clinical site.

All students are held responsible for exhibiting the following professional attributes: honesty, integrity, accountability, confidentiality, and professional demeanor. Academic dishonesty and professional misconduct are unacceptable. If there is doubt about whether or not academic or professional conduct is appropriate, individuals should query the Dean's Office.

Examples of unprofessional conduct include, but are not limited to, the following:

Academic Misconduct:

1. Cheating, includes but is not limited to, the following:
 - a. The receipt, possession, or use of any material or assistance not authorized by the instructor in the preparation of papers, reports, examinations, or any class assignments to be submitted for credit as part of a course or to be submitted to fulfill College requirements.
 - b. Arranging to have others take examinations or complete assignments (i.e., papers, reports, laboratory data, or products) for oneself, unauthorized collaborating with another student on individual assignments, or doing academic work for another student.
 - c. Stealing or otherwise improperly obtaining, unauthorized copies of an examination or assignment before or after its administration, and/or passing it onto other students.
 - d. Copying, in part or in whole, exams or assignments that will be kept by the instructor and are handed out in class only for review purposes.
 - e. Knowingly submitting a paper, report, presentation, examination, or any class assignment that has been altered or corrected, in part or in whole, for reevaluation or re-grading, without the instructor's permission.
 - f. Misrepresenting your attendance or the attendance of others in a course or practical experience where credit is given and/or a mandatory attendance policy is in effect.
 - g. Plagiarism: Submitting work that is, in part or in whole, not entirely the student's own, without attributing such portions to their correct sources. Unauthorized collaboration with another student and representing it as one's own individual work is also considered plagiarism. Ignorance is NOT an excuse.
 - h. Fabrication: falsifying data in scientific/clinical research, papers, and reports.
 - i. Aiding or abetting dishonesty: Knowingly giving assistance not authorized by the instructor to another in the preparation of papers, reports, presentations, examinations, or laboratory data and products.
2. Utilization of a false/misleading illness or family emergency to gain extension and/or exemption on assignments and tests.
3. Violation of any IRB and/or University research processes.

Professional Misconduct

1. Violation of conduct described in course policies or articulated by the instructor in writing.
2. Violation of any code of ethics of the profession in which the student is enrolled.
3. Contributing to, or engaging in, any activity which disrupts or obstructs the teaching, research, or outreach programs of the College or University, on campus or at affiliated training sites.
4. Entering the classroom or clinical experience habitually late or leaving early, arriving late to a professional activity, without prior permission from the instructor. The instructor also has the obligation to notify the class, if possible in advance, of any changes in class times, possible late arrival, and/or cancelled classes.
5. Approaching faculty, staff, or students in less than a professional manner and treating faculty, staff, peers, and patients in a disrespectful and inconsiderate way (i.e., addressing a faculty member without the appropriate title during professional activities). Respect and consideration are also expected when addressing a faculty member, staff, student, or patient that chooses to be called by their first name.
6. Failure to deal with professional, staff, and peer members of the health care team in a considerate manner and with a spirit of cooperation.
7. Unprofessional dress (as outlined in the professional program, class and/or clinical agency policies) during classes, clinical experiences, or when representing the College of Health Professions.
8. Bringing family members, guests, and pets to the classroom or any professional academic activities without prior consent of the instructor.
9. Falsifying applications, forms, documents, reports, or records of any kind or providing false information to the University personnel prior to admission to the College, or while an active member of the College's academic programs.

10. Unauthorized accessing or revealing of confidential information about faculty, staff, or students of the College and University.
11. Violation of patient respect and confidentiality in any practice/learning setting.
12. Theft, damaging, defacing, or unauthorized use of any property of the College, University, or training sites.
13. Computer Usage that violates NDSU/NDUS and/or clinical sites acceptable use policies.
14. Sexual harassment as defined by NDSU, NDUS, and/or clinical sites.
15. Harassment, threats of violence, intent to do harm (NDSU, NDUS)
16. Endangering patients, faculty, staff, and/or fellow students or damaging their property.
17. Intoxication, abuse, possession, use, and/or illegal sale of alcohol, drugs, chemicals, firearms, explosives, or weapons within the University campus, in any practice/learning setting, or when representing the College.
18. Any violation and/or conviction of any federal, state, or municipal law as well as a University rule or rule at a professional experience site.
19. DUI & DWI (driving under the influence or driving while intoxicated) is considered by the College as improper behavior, and any individual violating this law is required to undergo an alcohol/drug evaluation.

Reporting Process

Academic Misconduct

1. Students are required to report any academic misconduct to the Associate Dean for Academic Affairs within 7 days of the occurrence. Failure of the student to report violations within the required time could result in immediate expulsion from the College and/or its programs. Graduate students must also report to the Department Chair of the graduate program.
2. The course instructor who suspects that academic misconduct has occurred in their course or other instructional context has an initial responsibility to: a) inform the student(s) involved of his/her suspicion and the suspicion's grounds; b) allow a fair opportunity for the student to respond; and c) make a fair and reasonable judgment as to whether any academic misconduct occurred.
3. The course instructor will report academic misconduct violations to their Department Chair within 7 days of the occurrence or discovery of the misconduct.
4. The Department Chair will report the academic misconduct to the Associate Dean for Academic Affairs.

Professional Misconduct

1. Students are required to report any professional misconduct to the Senior Associate Dean within 7 days of the occurrence. Failure of the student to report violations within the required time could result in immediate expulsion from the College and/or its programs.
2. Faculty members are required to report unprofessional conduct within the classroom setting. Similarly, other College personnel are required to report professional misconduct issues as they arise and which directly affect their daily professional activities.
3. The faculty member/College personnel will report professional misconduct violations to their Department Chair within 7 days of the occurrence or discovery of the misconduct.
4. The Department Chair will report the professional misconduct to the Senior Associate Dean within 7 days of the discovery of the misconduct.
5. If a faculty member is aware that a student has violated the Conduct Policy outside of the classroom, he/she should remind the student of the policy and direct the student to self-report any professional misconduct violations to the Senior Associate Dean within 7 days of the occurrence.

Disciplinary Sanctions

Academic Misconduct

1. The course instructor is responsible for determining the sanction for academic misconduct in the course. Sanctions may include, but are not limited to, failure for a particular assignment, test, or course.
2. The course instructor will inform the student of the sanction in writing by completing the Student Academic Misconduct Tracking Form as per University Policy 335 and submitting it to the student and the Department Chair.
3. The Department Chair will submit a copy of the form to the Associate Dean for Academic Affairs.
4. The Associate Dean for Academic Affairs will submit the form to the Registrar and Provost/VPAA in accordance with University Policy 335. In the case of graduate student academic misconduct, the Dean of the College of Graduate & Interdisciplinary Studies must also receive a copy of the completed Student Academic Misconduct Tracking form.
5. A copy of the Student Academic Misconduct Tracking Form will be placed in the student's academic file.

Professional Misconduct

1. Professional misconduct issues may be more likely to happen outside of the classroom and have broader implications for the well-being of students, faculty, and staff in the College. Hence, the Senior Associate Dean has the initial and primary responsibility for administering and enforcing professional misconduct issues.
2. The Senior Associate Dean will work collaboratively with the Department Chair (and where appropriate, individual instructors) to resolve professional misconduct issues.

Department and College Related Sanctions

Additional academic and/or professional disciplinary sanctions for the department/program may be assigned by the Department Chair depending upon the circumstances and nature of the misconduct. The Department Administrator will notify the student in writing of the sanction and rights to due process and forward a copy to the Senior Associate Dean &/or the Associate Dean for Academic Affairs.

The Associate Deans may impose additional disciplinary sanctions for the **College** and will notify the student in writing and the Dean of the College of Graduate and Interdisciplinary Studies (if a graduate student involved). Disciplinary action for academic and professional misconduct will depend based upon the seriousness of the misconduct. In general, sanctions may include, but are not limited to, any of the following:

1. Probation.
2. Supervised probation.
3. Suspension from the College.
4. Termination from the College. (Termination from the College of Health Professions does not prohibit the student from registering elsewhere in the University provided the academic standards of the alternate college of registration have been met or exceeded.)

In cases of particularly egregious or multiple instances of academic/professional misconduct, the Dean of the College may also recommend expulsion from the university.

Student's Right to Appeal

Students sanctioned for violations of the College Student Academic and Conduct Standards Policy have the right to appeal. Student appeals must follow the appeal procedure outlined below. Graduate student appeals of sanctions involving academic misconduct must be filed in accordance with the Graduate Student Appeals policy described in the NDSU Graduate Bulletin.

Student Appeals Procedure

1. If the student chooses to appeal a course instructor's sanction, it must be pursued in the following sequence: course instructor, Department Chair, Associate Dean for Academic Affairs or Senior Associate Dean, and Dean.
2. Department and College related sanctions for professional misconduct may be appealed to the Senior Associate Dean and the College Student Affairs Committee. Department and College related sanctions for academic misconduct may be appealed to the Associate Dean for Academic Affairs and the College Academic Affairs Committee. Final appeals may be made to the Dean of the College of Health Professions.
3. In cases of sanctions involving suspension or termination from the College of Health Professions, the appeal will follow the process outlined in University Policy 335: Code of Academic Responsibility and Conduct.
4. An appeal for any sanction must be made in writing within 15 business days of the sanction letter. The date of the letter shall be the date the letter is postmarked. If hand-delivered, a notation of that date will be made in the student's file.
5. Appeal letters must specify in detail one or more of the following bases of appeal:
 - a. the sanction was too severe for the offense;
 - b. the decision for non-action/action/sanction was made in an arbitrary or capricious manner;
 - c. the finding of the Student Academic and Conduct Standards Policy having been violated was not substantiated by evidence, and/or
 - d. the student's/student organization's rights were violated (specify those rights believed to have been violated).

Appeal Review Process (Pre-professional and Professional Students)

1. Appeals made to the Senior Associate Dean or Associate Dean for Academic Affairs will be reviewed by the Academic Affairs Committee or Student Affairs Committee of the

College depending upon the conduct violation in question.

2. The Academic Affairs/Student Affairs Committee will review the written letter of appeal from the student/organization and the materials from the original adjudication process. After reviewing these materials, the committee may decide to do one of the following:
 - a. issue a decision based solely on the written materials;
 - b. issue a decision based on a review of written materials and discussion with the involved principals;
 - c. recall one or more witnesses;
 - d. refer the decision to the full faculty for action;
 - e. return the case for reconsideration of the decision and/or sanctions.
3. The Academic Affairs/Student Affairs Committee may uphold or lessen the original decision/sanction but not increase the sanctions/actions imposed by other persons or bodies.
4. The decision of the committee will generally be issued within 15 working days of the receipt of the appeal letter, but may take longer during University recesses, or in the event of complex cases.
5. The Registrar will be advised of the results of the appeal.

Unresolved Appeals

After the College appeals process has been completed, if the student/organization is not satisfied with the appeal decision, the student/organization has the right to appeal the decision to the Provost. The Provost will make the final decision on any appeals.

Incomplete Disciplinary Process

Students with pending disciplinary or legal actions, with sanctions for which an appeal has been submitted but not resolved, or whose sanctions have not been successfully fulfilled, will not be allowed to graduate from NDSU with a degree, major, or program of study offered by the College of Health Professions. In such cases, the College reserves the right to place a hold on a student's graduation until the case has been successfully resolved and the sanctions have been successfully fulfilled.

Annual Pledge, FERPA Notification, and Signature

I have read and understand the above policy. I agree to accept and abide by this Student Academic and Conduct Standards Policy of the College of Health Professions. I understand that possible violations of this policy and sanctions imposed, as well as information used to substantiate violations (including, but not limited to, criminal background checks and drug screens), may be shared with College affiliated educational training programs, clinical sites at which I may complete program-specific experiential requirements, licensing and/or certification boards relevant to my program of study, clinical sites at which I work for non-academic reasons (i.e., for pay or to volunteer), and other faculty, staff or administrators within the College of Health Professions and North Dakota State University who have a legitimate interest in my education. I understand that I have the right to revoke the College of Health Professions' ability to share this information at any time. Should I revoke the ability of the College of Health Professions to share relevant information with the aforementioned parties, I also understand that I am immediately ineligible to complete a degree offered within the College of Health Professions, and I voluntarily (and immediately) withdraw from my major or program of study within the College. I understand that withdrawing from a major or program of study within the College of Health Professions does not prevent me from pursuing another major at North Dakota State University. I am also aware of and assume responsibility for following other College and Department policies as stated in my major or program of study's student handbook.

RIGHT TO TERMINATE ENROLLMENT POLICY 3.03

The College of Health Professions reserves the right to terminate the enrollment of any student at any time, if the student demonstrates that he or she is unsuited for a professional career and its inherent responsibilities and obligations. Circumstances that may lead to student termination will include, but not be limited to, violation of state or federal statutes or regulations.

STATUS DOCUMENTATION POLICY 3.06

Upon acceptance to a professional program housed in the College of Health Professions, students may be required to submit documentation of health status. Programs will define their own documentation requirements and include those requirements in their program handbook(s). Examples of documentation may include, but are not limited to:

- Record of immunizations or other immunity for influenza, measles, mumps, rubella, varicella, poliomyelitis, tetanus, diphtheria, hepatitis B
- Results of tuberculin testing

- Physical examination by the student's health care provider (MD, DO, NP) within one year
- Allergies
- Health problems that may be of significance in clinical practice
- Permission to release information to clinical agencies
- Affirmation of veracity of the record

Health status documentation to be completed by the student and his/her health care provider will be provided to the student. Documentation must be submitted to the student's professional program designee as indicated in student's program handbook. If required by the professional program, tuberculin testing must be done annually and the report submitted to the appropriate department. The expense of the physical examination and any needed immunizations is the student's responsibility.

HEALTH INSURANCE POLICY 3.07

Upon admission to the professional program students in the College of Health Professions are required to have adequate health insurance coverage in case they require health care or hospitalization while they are enrolled. The College does not provide coverage for students while they are in clinical experiences, and students are not covered by the agency's workers' compensation. Insurance company and policy number will be provided by the student to the secretary in the department in which the student is enrolled before any experience in the clinical areas. Insurance may be obtained through the University or a company selected by the applicant.

CRIMINAL BACKGROUND CHECKS POLICY 3.08

NDSU (and the College of Health Professions) reserves the right to refuse admission or re-enrollment or to place conditions on admission or re-enrollment of applicants and former students, and suspend or terminate the enrollment of students, who NDSU and/or the College of Health Professions determine represent a safety risk to NDSU or the College, students, employees, property, or affiliated teaching sites and their employees and patients. An individual who is disqualified from having patient contact based on a background check may be unable to meet program requirements and/or to complete their intended degree. The State regulatory boards may deny licensure to an individual with a criminal background. All students will be required to complete a criminal background check as determined by their discipline. Students may be required to obtain two background checks (a multi-state and an FBI check) at multiple points in their educational program. Students who do not comply with the background checks, release of information, and the required deadlines for procuring background checks will be prevented from registering for and/or attending classes and/or professional program application(s).

PROFESSIONAL DRESS POLICY 3.09

Professionalism is a core value of our program. Students are to dress appropriately during the laboratory and experiential components of the professional program in order to promote and maintain a positive professional image. In addition, appropriate professional clothing is to be worn when representing the College at professional out-reach activities. Violations of the College or departmental dress code may result in sanctions. Students should refer to their respective department or affiliated clinical/experiential dress code policy for further details.

STUDENT TECHNICAL STANDARDS POLICY 3.10

The North Dakota State University College of Health Professions' (NDSU CHP) mission is to educate students and advance research and professional service in pharmacy, nursing, allied sciences, and public health. As a corollary to this mission, the NDSU CHP seeks to train students who have the ability, interest and work ethic necessary to be eligible for licensure and/or certification and to embark upon a successful career as a health care professional. Thus, all professional programs offered by the NDSU CHP require students to undertake the full set of activities that are necessary to complete their program(s) of study.

The goal of every licensed and/or certified health professional is to provide safe and effective care to patients. In order to provide that care, individuals must demonstrate the physical, cognitive and social skills necessary to learn, practice and master each of the competencies of one's profession. Failure to demonstrate these competencies not only endangers the patients under the provider's care, but also impacts the ability of other health care professionals to provide safe and effective patientcare.

To that end, the NDSU CHP has established the following technical standards as minimal guidelines regarding the competencies necessary to complete a professional program in the NDSU CHP. For simplicity, these competencies are organized into three general categories: physical, cognitive and social.

Physical Competencies

1. Students must demonstrate sufficient motor skill capacities to evaluate and execute medication orders, use diagnostic equipment specific to the discipline, undertake physical assessments of patients and effectively deliver therapies commensurate with the discipline.
2. Students must demonstrate sufficient physical stamina to productively contribute to a practice or classroom setting over a standard length of time. As an example, students on clinical rotations should demonstrate the physical stamina to keep up with their peers and supervisors as they perform patient care activities over the course of a typical shift.
3. Students must demonstrate the physical capacity to observe their surroundings and environment (in both the classroom and in the practice setting) using visual, auditory and somatic senses.

Cognitive Competencies

1. Students must demonstrate the innate ability to collect, comprehend, and interpret information from their physical surroundings. That is, a student must demonstrate not only the physical ability to interact with a patient, a peer, a teacher or other environmental stimuli, but must also demonstrate the cognitive ability to process the interaction and develop an appropriate response. As a practical example, a health care professional must not only demonstrate the physical faculties to communicate with a patient, but also the mental capacity to understand the patient's needs and formulate an appropriate response.
2. Students must consistently demonstrate the ability to think analytically and critically. Students must be able to use these skills (both independently and as part of a team of professionals) to solve practical patient care problems. Students must be able to think critically and analytically in an efficient and timely manner, and under stressful conditions. It is important to stress that this competency is as much a function of practice as it is a function of innate cognitive ability (item 1).
3. Students must demonstrate the ability to adapt to new information, situations, problems and environments. Students must demonstrate the ability to incorporate those new stimuli into their decision making processes and respond in an appropriate fashion. As an example, students must demonstrate the ability to incorporate new concepts, patient care standards and past academic and/or work experience into their current and future patient care activities.

Social Competencies

1. Students must demonstrate the ability to adhere to the regulatory and institutional constraints imposed by the discipline, most notably by the law and the licensing board of the discipline in question.
2. Students must demonstrate the ability to act in an ethical and professional manner commensurate with the standards of the discipline. It is important to note that, while laws and regulations are themselves ethical and moral guidelines, they are minimalist in nature. Acting in a truly ethical and professional manner may require holding oneself to stricter standards of behavior than what is required by regulatory and institutional constraints. It also requires a high degree of maturity and emotional stability.
3. Students must demonstrate the ability to observe, understand and show compassion for patients.
4. Students must demonstrate effective interpersonal communication skills, including verbal, nonverbal and written communication skills. Students must demonstrate sufficient fluency (verbally, nonverbally and written skills) in the native language where the instruction takes place.
5. Students must demonstrate cultural sensitivity, and understand the ideologies, socio-cultural and political characteristics which frame the lives and daily activities of their peers, co-workers and/or patients.

Reasonable Accommodations under the Americans with Disabilities Act (ADA)

The College strongly encourages any student who suspects that he or she may have a disability to contact the NDSU Office of Disability Services for guidance concerning the steps that are necessary to document and verify the nature and extent of the disability. Consistent with NDSU, state and Federal policies, students with documented evidence of disabilities have every right to request reasonable accommodations of instructors (defined in the broadest sense to include faculty, preceptors, administrators and supervisors), and instructors are required to accommodate reasonable requests. However, such requests are not reasonable if they disrupt, are detrimental to and/or endanger patients, students, co-workers and/or instructors. As such, students who, after reasonable accommodations are made, do not consistently demonstrate the competencies identified above are ineligible for admission or progression in the NDSU CHP' professional programs.

Additional Technical Standards

Specific professional programs housed in the NDSU CHP (and the departments sponsoring those programs) may choose to add additional competencies not specifically identified in this policy. Successful demonstration (with or without reasonable accommodations) of program specific technical standards is also required for admission and progression within the specific professional program. Students should make every effort to obtain and understand these additional competencies from the academic administrator for that program (i.e., a chair and/or associate dean).

Failing to Meet, Reporting and Adjudicating Technical Competencies

Students who consistently fail to demonstrate the competencies identified above are ineligible for admission or progression in the NDSU CHP' professional programs. Students who are admitted to a professional program and who realize (either through their own efforts or as demonstrated by a licensing board, a preceptor or a faculty member in the student's program) that they do not (or no longer) consistently demonstrate the requisite technical competencies to be eligible for licensure have an ethical obligation to self-report that information to the CHP administration (i.e., the appropriate department chair, the Associate Dean for Nursing, the Senior Associate Dean, and/or the Associate Dean for Academic Affairs). Moreover, once realized (own awareness or as reported to them by a licensing board, faculty, or preceptor), a failure to self-report a consistent lack of technical competencies represents a violation of the Student Conduct Policy (College Policy Manual, Policy 3.01). Once self-reporting occurs, these administrators will work with the student to identify reasonable accommodations. If reasonable accommodations are not available, these administrators will assist the student as he or she transitions out of the professional program. This transition will occur in a manner generally consistent with the timelines established in the Student Conduct Policy (College Policy Manual, Policy 3.01).

SUBSTANCE MISUSE TESTING POLICY 3.14

The NDSU College of Health Professions is committed to ensuring safe, healthy learning environments, including both didactic and experiential learning environments, for all of its students. The use of illicit drugs, as well as the overt misuse of alcohol and/or legally prescribed medications (including, but not limited to, mood altering medications) compromise learning environments and are prohibited under College Policy 3.01: Student Conduct Policy and University Policy 155. It is beneficial for all College of Health Professions stakeholders (including its students, faculty, staff, clinical partners, and the patients and families we serve) to establish a testing policy process to ensure the safety and health of these learning environments, as well as to ensure an equitable due process for students who are alleged to partake in substance misuse.

Bases for Testing

The College of Health Professions reserves the right to require any student enrolled in one of its preprofessional or professional programs and/or enrolled in any course housed within the College to undergo testing for substance misuse. All testing is coordinated and monitored through the Office of the Associate Dean for Student Affairs and Faculty Development (ADSAFD). All testing must be direct observation, 10 panel (or higher) tests, and must be conducted at a WADA-accredited or SAMHSA-certified laboratory. Per College Policy 3.12: Student File Contents, all test results shall be maintained in a secure location in the Office of the ADSAFD, and may be included in the Student's Personal File. The default method of analysis will be urinalysis, although the ADSAFD reserves the right to require alternative methods of analysis (for example, blood analysis or hair analysis) where appropriate. Alternative methods (if required) will be disclosed in writing when notifying the student about the need to be tested.

Nonrandom Testing

Nonrandom testing for substance misuse may occur as a requirement for entry into clinical sites (per site policies or program-specific experiential education policies), or to fulfill the requirements of sanctions imposed under College Policy 3.01: Student Conduct Policy.

Reasonable Suspicion Testing

Incidents or events involving suspected substance misuse by students shall be reported to the ADSAFD using the Reasonable Suspicion Reporting Form. Reasonable suspicion shall be determined using objective evidence (photos, legal documents, or other documentation), reports made by credible sources (law enforcement, clinical site staff, NDSU faculty and staff, etc.), or a combination of these sources. Because it is a violation of University Policy 155 and College Policy 3.01: Student Conduct Policy to misuse alcohol or prescription medications, or to use illicit drugs, and testing may exonerate the student of an alleged policy violation should the allegation be made falsely, the ADSAFD may exercise discretion in determining what evidence is of sufficient credibility to require testing. A descriptive summary of the evidence will be provided to the student at the time the student is informed of the need to submit to testing.

Random Testing

The College of Health Professions may implement a random substance misuse testing program. Should a random substance misuse testing program be implemented, the parameters of the program must be made freely available on the College of Health Professions' website, and students must be provided notice of the policy at least 6 months prior to its implementation. No more than 5 percent of the active College of Health Professions student body may be randomly selected for testing in any academic semester. No student will be randomly identified for testing more than once in a single academic year. The random selection of students will be implemented using a computer generated random number generating process, with interval (or other non-weighted) sampling. A summary of that selection process shall be provided to the Dean of the College of Health Professions on an annual basis.

Testing Process

Students who are required to undergo testing will be notified in writing via NDSU email. Upon receiving a request for testing, students are responsible for providing a 10 (or larger) panel, direct observation, drug screen from a reputable, appropriated licensed vendor within 12 business hours of the date and time of the request. The student identified for testing is solely responsible for obtaining his/her own appointment for testing, his/her transportation to the appointment, and paying the costs of these tests. An original copy of the test results must be delivered to the Office of the ADSAFD at the end of the 12 business hour window. Test results that show evidence of a diluted sample will not be accepted, and will not result in additional time in which to submit test results.

Ramifications for Positive Test Results or Failure to Test in a Timely Manner

Students whose test results are positive are subject to sanctions outlined in College Policy 3.01: Student Conduct Policy. Once sanctions are assigned, a student's rights of due process are also outlined in College Policy 3.01: Student Conduct Policy.

Students who fail to submit an original copy of their test results within the 12 business hour window face additional sanctions under College Policy 3.01: Student Conduct Policy. More specifically, students who fail to provide the required test results within the 12 business hour window will be sanctioned under the presumption that the test results for the substance misuse in question are positive.

Testing Alternatives

Students whose religious, cultural or other practices prohibit them from undergoing a specific type of drug test may request that the ADSAFD require an alternative test, so long as the alternative test is of equal or greater accuracy and precision than the original test required by the ADSAFD. All parameters identified previously apply to the alternative test. In the event that no such test exists, or in the event that students are unable to justify the need for an alternative test, students may be found in violation of College Policy 3.11: Student Technical Standards

SCHOOL OF PHARMACY POLICIES

PRE-PHARMACY & PROFESSIONAL PHARMACY MAJORS

The faculty reserve the right to change rules and regulations including those relating to admission, instruction and graduation. Such changes may apply to prospective students, as well as students already enrolled. Changes will be shared with students in a timely manner. However, it is the responsibility of the student to periodically contact their adviser or the Dean's Office to obtain current policies.

Please note that additional policies and procedures not contained in this document apply to students in the college. Those policies and procedures are contained in the College of Health Professions Policy manual.

[School of Pharmacy Policy Manual](#)

WORKLOAD STATEMENT

All eligible pharmacy students may use their pharmacy intern licenses as a source of monetary income. The School of Pharmacy strongly encourages every eligible pharmacy student to meet with her or his academic advisor to determine a number of paid intern hours that allows the student to balance their paid work hours with their educational and other extra-curricular commitments.

As a general rule, many (but not all) students find that they may be able to work up to 10-15 hours per week during the typical academic year, and during weeks when no exams are scheduled, and continue to maintain strong grades and meet other commitments. Pre-professional and professional pharmacy students are strongly encouraged to reduce the number of hours worked per week when one or more exams are scheduled.

In general, the School of Pharmacy discourages pre-professional and professional pharmacy students from working more than 20 hours per week during the academic year.

REPETITION OF PRE-PHARMACY CORE COURSES POLICY 2.21.1

The total number of pre-pharmacy core courses which may be repeated shall be limited to three. The grade received during the student's final attempt for any core pre-pharmacy course will be used in evaluation for admission. A withdrawal is not considered an attempt. A core course is one that is included in the GPA for admission purposes.

CURRENT COMPETENCY IN COURSEWORK POLICY 2.28

Coursework in the areas of science and mathematics must be no more than seven years old at the time of application to the professional program. Coursework presented in these areas that is older than seven years must demonstrate current competency.

Current competency may be demonstrated by:

1. Retaking a portion of the series in question, i.e. 122 of 121/122 Chem series;
2. Enrolling in a formal audit that is indicated on a student's official transcript;
3. Challenging coursework through the department in question; or
4. Meeting with faculty in the areas of Science or Mathematics and having them determine current competency.

Students who intend to meet current competency requirements using item 3 or 4 must receive approval from the Chair of Pharmacy Admissions Committee prior to undertaking the current competency.

ACADEMIC REMEDIATION AND REPETITION OF PROFESSIONAL PHARMACY COURSES POLICY 3.20

Professional pharmacy students failing to achieve a minimum grade of "C" in a graded course or "P" in a pass/fail course may be offered remediation at the discretion of the course instructor(s) to. Remediation is a privilege and should only be offered to students with regular course attendance and participation. Remediation is defined as any change in grade based on the established grading criteria and process that applies to all students.

Remediation will be tailored to the individual student and may include, but is not limited to, one or more of the following in conjunction with academic advising: re-examination, additional course work, independent study, and campus tutoring. If remediation is offered, it is the responsibility of the instructor to ensure the student demonstrates competence in the course material. Prior to offering remediation, the course instructor must notify the Associate Dean for Academic Affairs with the student's name and proposed plan of remediation. The Associate Dean for Academic Affairs will be responsible for tracking remediation opportunities offered to all professional students. Students will only be allowed to remediate one course per semester.

If students do not successfully complete a professional pharmacy course (i.e. grade less than a C), and remediation is not offered, they may repeat the course. Withdrawal (for reasons other than extenuating conditions*) from a professional pharmacy course with a grade less than a C is considered the same as a failure.

Failure to complete all Co-Curriculum semester requirements is considered a professional pharmacy course failure.

Students are limited to a total number of three (3) course failures and/or course remediation. A fourth occurrence of receiving a grade less than a C (or withdrawal due to a grade less than a C) or course remediation in a professional pharmacy course, didactic or experiential, will result in termination from the

pharmacy program.

For example, the established standard would result in dismissal from the professional pharmacy program if a student had the following results Remediation of 2 courses, failure of 1 course, and failure of 1 APPE.

Compliance with the University Class Attendance Policy 333 is still required by instructors. Appeals to this policy may be submitted to the Pharmacy Academic Affairs and Student Progress Committee which may grant exceptions due to extenuating circumstances.

*All extenuating circumstances must be approved by the Pharmacy Academic Affairs and Student Progress Committee before the withdrawal takes place.

MINIMUM GRADE REQUIREMENT FOR PHARMACY COURSEWORK POLICY 3.21

A grade of C or better is required in **all** required courses in the pre-pharmacy and professional curricula (courses listed by name or number).

The College does not permit any course required with name and number to be taken pass/fail, with the exception of labs offered only this way. Course work utilized for NDUS general education credits must be taken for a letter grade.

PREREQUISITES FOR PROFESSIONAL COURSES POLICY 3.23

Prerequisites for all courses taught in the professional curriculum are to be established by the faculty and any changes made in prerequisites for the professional program must be approved by the faculty.

All prerequisite course work in the professional program, whether offered from within or without the College of Health Professions, must be completed with a minimum grade of C in order for the student to progress.

It is the responsibility of individual course instructors to check and enforce their own course prerequisites.

PROFESSIONAL ELECTIVES POLICY 3.26

A minimum of six professional elective course credits, that permit exploration of and/or advance study in areas of professional interest, are required for graduation with the entry-level Pharm.D. degree. Professional elective courses are subject to the following rules.

1. **Professional elective courses must be taken while enrolled in the entry-level Pharm.D. program** (e.g. beginning Fall Semester P1 year). These courses must be completed prior to the beginning of the P4 year.
2. A grade of C or better (or pass for a pass/fail course) is required.
3. The pre-approved professional elective courses are listed below and on Blackboard.
4. A student may take a professional elective course that is not included in the pre-approved list only after (1) consultation with his/her academic advisor, AND (2) approval of the course by the Pharm.D. Curriculum Committee.

The necessary steps to take a course that is not included in the pre-approved professional elective course list is as follows:

1. The student must meet with his/her advisor and demonstrate that the course “permits exploration of and/or advance study in areas of professional interest”. This request must be made to the advisor by December 1 for upcoming spring semester courses, and April 1 for upcoming summer and fall semester courses.
2. If the advisor supports the student’s elective course choice, then the advisor shall petition to the chair of the Curriculum Committee to approve the course.
3. The Curriculum Committee will obtain a syllabus for review and contact the instructor to address other criteria as needed.

4. Upon receipt of all required information, the Curriculum Committee shall review the information, determine the status of the request, and inform the student, and advisor, of the outcome of the petition.
5. If the Curriculum Committee approves the course, the course shall be included in future revisions of the pre-approved professional elective course list.

PRE-APPROVED PROFESSIONAL ELECTIVE COURSES (4/2021)

| | | |
|----------------------|----------------|--|
| ADHM | 411 | Food and World Cultures |
| ANTH | 332 | Medical Anthropology |
| BIOL/PLSC | 315 | Genetics |
| BIOL/PLSC | 315L | Genetics Laboratory |
| BIOL | 364 | General Ecology |
| BUSN | 318 | Taxation in Management Decisions |
| BUSN | 340 | International Business |
| CHEM | 425 | Inorganic Chemistry I |
| CHP | 300 and higher | |
| CJ | 407 | Deviant Behavior |
| Creighton University | PHA 451 | Advanced Critical Care |
| EDUC | 321 | Introduction to Teaching |
| ENGR | 312 | Impact of Technology on Society |
| FIN | 320 | Principles of Finance |
| HSE (formally HDE) | 320 | Professional Issues |
| HDFS | 320 | Prenatal, Infant and Toddler Development |
| HDFS | 330* | Child Development |
| HDFS | 350* | Fundamentals of Hospital Child Life |
| HDFS | 353 | Children, Families and Public Policy |
| HDFS | 357 | Personal and Family Finance |
| HDFS | 435 | Topics in Socioemotional Development |
| HDFS | 480 | Community Resources of Later Life |
| HDFS | 482 | Family Dynamics of Aging |
| HDFS | 468 | Families and Work |
| Mercer University | PHA 505 | Community Pharmacy Ownership |
| MGMT | 320 | Foundations of Management |
| MGMT | 330 | Foundations of Organizational Behavior |
| MGMT | 430/630 | Leadership in Organizations |
| MGMT | 450 | Human Resource Management |
| MGMT | 470 | Entrepreneurship/Small Business Management |
| MICR | 350 | General Microbiology |
| MICR | 350L | General Microbiology Lab |
| MICR | 445 | Animal Cell Culture Techniques |
| MICR | 460L | Pathogenic Microbiology Laboratory |
| MICR | 463 | Clinical Parasitology |
| MICR | 471 | Immunology and Serology Laboratory |
| MICR | 474 | Epidemiology |
| MICR | 475 | Animal Virology |
| MICR | 480 | Bacterial Physiology |
| MICR | 482 | Bacterial Genetics and Phage |
| MRKT | 320 | Foundations of Marketing |
| MRKT | 362 | Foundations of Retailing |
| PH (formerly MPH) | 300 and higher | |
| PHRM | 300 and higher | |
| PSCI | 300 and higher | |
| PSYC | 322 | Thinking & Making Decisions |
| PSYC | 340 | Psychology in Sport |
| PSYC | 380 | Clinical Psychology |
| PSYC | 382 | Self-Injury: Recognition & Treatment |
| PSYC | 460 | Sensation & Perception |

| | | |
|-----------------------|-----------|---|
| PSYC | 481/681 | Health Psychology |
| SOC | 410 | Social Inequality |
| SOC | 412 | Sociology of Gender |
| SOC | 417 | Sociology of the Family |
| SOC | 441 | Death and Dying |
| SOC | 426/626 | Sociology of Medicine |
| SPAN | 391 | Spanish for Healthcare |
| University of Florida | PHA 6357 | Herbal and Dietary Supplements course for Pharmacy Students |
| University of Florida | PHA 6935 | Veterinary Pharmacy Course for Pharmacy Students |
| University of Florida | PHA 6935 | History in Pharmacy Leadership |
| University of Florida | PHA 6935 | Development of Pharmacy Leadership |
| University of Wyoming | PHCY 5210 | Regulating Dangerous Drug Use |
| University of Wyoming | PHCY 5240 | Pharmaceutical Homicide Prevention |
| University of Wyoming | PHCY 5670 | Medication Malpractice |

REMINDER: These courses cannot be used as a professional elective if they were taken prior to the fall semester of a student's P1 year. In addition, if a student took any of these courses before the fall semester of their P1 year, they cannot retake them while in the pharmacy program and try to count them as a professional elective.

Students must ensure that pre-reqs are met or waived from the offering department (student-lead procedure). Courses are also subject to capacity. If you do not meet the current prerequisites, consult your advisor for next steps.

*Send an email to the HDFS office manager Marge Heinle (Maggie.Heinle@ndsu.edu) with your major and request permission to register for the course.

*** Contact Information regarding courses offered outside the College:**

Creighton University School of Pharmacy: PHA 451-On-line-Advanced Critical Care Elec., 2 cr. For information regarding registration, please direct all questions to Jeanne Riha, Support Secretary for Registration Services, 402-280-3296, jeanneriha@creighton.edu. <https://spahp.creighton.edu/future-students/visiting-students>

Mercer University: PHA 505 – On-Line – Community Pharmacy Ownership, 2 cr. For more information regarding the course, open their web site - <https://pharmacy.mercer.edu/community-pharmacy-ownership-elective/>. To begin the registration process, select the link located next to “Non-Mercer Pharmacy Students.”

University of Florida College of Pharmacy:
<http://electives.distance.ufhealth.org/courses/>

PHA 6357 – On-line: Herbal and Dietary Supplements course for Pharmacy Students, 3 cr.

PHA 6935 - On-line: Veterinary Pharmacy Course for Pharmacy Students, 2 cr.

PHA 6935 - On-line: History in Pharmacy Leadership, 2 cr.

PHA 6935 - On-line: Development of Pharmacy Leadership, 1 cr.

STUDENT COMPLAINT POLICY 3.28

The Accreditation Council for Pharmacy Education (ACPE), at the behest of the U.S. Secretary of Education, requires all accredited pharmacy programs to establish, implement and assess a formal complaint policy for students. More specifically, all accredited colleges or schools of pharmacy must establish a comprehensive policy with a simple set of procedures whereby all students enrolled in the College (and the pharmacy program in particular) can submit and resolve a complaint about the educational process. While such procedures do not always produce an outcome that meets the student's preferences, they do ensure that students have access to an equitable and efficient means to remediate their complaints. The complete set of ACPE standards regarding student complaint policies can be found on pages 38-39 (Standard 20) of the following website: <http://www.acpe-accredit.org/pdf/FinalS2007Guidelines2.0.pdf>.

The NDSU College of Health Professions takes student complaints very seriously. Our goal is to ensure that students have access to transparent, due process in a manner that leads to an appropriate resolution of the complaint. To that end, a copy of the NDSU College of Health Professions policy relating to this issue is available on its website at www.ndsu.edu/healthprofessions. Students who have difficulty accessing this webpage may also obtain a copy of the complaint policy in the Dean's Office (Sudro Hall 123). A discussion of this policy shall take place annually during the orientation process for first professional year students.

Each student complaint will be appropriately documented and investigated. A chronological record of each complaint, including the nature of the complaint, written records of the complaint procedure and the final outcomes of the resolution process shall be maintained in the Office of the Dean of the School of Pharmacy, and shall be available for review by ACPE or its representatives upon written request or in the process of an on-site evaluation visit.

Student complaints generally fall within two major categories: complaints about unfair grading and all other, non-grade-related complaints. Student complaints about grades are generally handled at the level of the University, since grades are usually administered through the NDSU Office of Registration and Records. Other student complaints remain under the purview of the individual colleges within NDSU.

Student Complaints Regarding Grades

University Grade Appeal Policy 337

NDSU has an established policy regarding complaints about grading, otherwise known as “grade appeals”. The full grade appeal policy, which includes hearing procedures, is available at www.ndsu.edu/fileadmin/policy/337.pdf. While students actively considering a grade appeal are referred to the aforementioned website for the specific details of the policy, a summary of the policy is outlined below.

With the exception of incomplete grades, a course grade is considered final unless an appropriate appeal is filed by the student. Grade changes are also considered only for those students who have not yet earned a degree for which the course in question was applied.

For a student who has reason to believe that they have been issued an incorrect or inappropriate grade, he/she must initiate a request for a change of a grade with the instructor within fifteen (15) instructional days of the first day of the semester immediately following the semester in which the grade was awarded. For Spring Semester courses, the request may be made within fifteen (15) instructional days of the start of Fall Semester.

A grade appeal is formally initiated when the student presents the Grade Appeal Form to the instructor. If there is an unsatisfactory decision, the student must consult the Department Head, and the Dean or a designated college committee, proceeding from one level to the next only after an unsatisfactory decision of the conflict at that level. In the event that the instructor is also the Department Head or Dean, he or she need only be consulted in the capacity of instructor. In the event of an unsatisfactory decision within the college, the student may submit a formal written appeal to the Grade Appeals Board Chair. Such an appeal shall be made within fifteen (15) instructional days after conclusion of the college proceedings as stated above.

Non-Grade Student Complaints

Pre-professional and professional pharmacy students who have a non-grade-related complaint can seek resolution of that complaint through the following procedures. It is important to note that these procedures represent the sole avenue for student complaints regarding non-grade-related issues, including (but not limited to) ACPE standards, policies and procedures. Additionally, because the pharmacy program spans multiple departments, the non-grade complaints are handled through the Dean’s Office, rather than by the departments themselves.

1. The student(s) or, in cases where student anonymity is required, their advocate (also known as the “plaintiff(s)”) will file a formal written complaint (delivered through the postal service or NDSU email) to the Dean’s Office in the NDSU College of Health Professions.
2. The written complaint must include a description of the issue, policy, or procedure in question. It must also summarize the argument of the plaintiff (including the grounds for the appeal or complaint) and provide a reasonable amount of evidence supporting the claim.
3. Upon receipt of the written complaint, the complaint will be assigned to the Senior Associate Dean. The plaintiff(s) will receive email notification (via NDSU email) within forty-eight hours of the receipt of the complaint. In the email, the Senior Associate Dean shall acknowledge receipt of the complaint and assign a specific College of Health Professions committee to review the complaint. The Senior Associate Dean shall also provide a brief rationale for assigning the complaint to a particular committee. The determination of the appropriate committee to review the case rests solely with the Senior Associate Dean. Plaintiff may not appeal the committee assignment, so long as the rationale for the assignment is provided by the Senior Associate Dean.
4. The Senior Associate Dean shall convene a meeting of the College Academic Affairs (if the complaint is primarily “academic” in nature, as defined by College Policy 3.01) or the Student Affairs Committee (if the complaint is “non-academic” in nature, as defined by College Policy 3.01) to review the complaint.

The Committee meeting shall occur within thirty days from the time that the Senior Associate Dean receives the written complaint.

5. Once the Committee has met, the Senior Associate Dean shall prepare and submit a formal, written reply to the student(s) based on the recommendation of Committee. The reply shall include an evaluation of the complaint, a description of any violations, and a proposal for any necessary corrective action. The reply will be sent through official NDSU delivery methods (i.e., the postal service, campus mail and/or the NDSU email system) within fifteen business days from the time that the Committee makes a decision.
6. Decisions of the Committee that demonstrate arbitrary and capricious treatment, or that are fundamentally inappropriate in the eyes of the plaintiff(s) may be appealed to the Dean of NDSU College of Health Professions. In such cases, the student(s) file an appeal using steps one through three outlined above, except the written complaint would be addressed directly to the Dean. The written complaint would also identify and provide evidence indicating that the Senior Associate Dean and/or the Committee acted in an arbitrary, capricious or otherwise inappropriate manner.
7. If unsatisfactory resolution occurs after the appeal to the Dean, a final appeal may be made to the Provost. Once again, the student(s) must file an appeal using steps one through three outlined above, except the written complaint would be addressed directly to the Provost, rather than the Dean, and would provide evidence substantiating the claim of unfair treatment at prior procedural levels.

STUDENT TECHNICAL STANDARDS (PHARM.D) POLICY 3.29

The North Dakota State University College of Health Professions' mission is to educate students and advance research and professional service in pharmacy, nursing, allied sciences, and public health. As a corollary to this mission, the Doctor of Pharmacy (Pharm.D.) program seeks to train students who have the ability, interest and work ethic necessary to be eligible for licensure, and embark upon a successful career as a healthcare professional. Thus, the Pharm.D. professional program requires students to undertake the **full set of activities** that are necessary to complete their program of study.

The goal of every licensed pharmacist is to provide **safe** and **effective** care to patients. In order to provide that care, individuals must have the physical, cognitive and social skills necessary to learn, practice and master each of the competencies of one's profession. Failure to demonstrate these competencies not only endangers the patients under the pharmacist's care, but also impacts the ability of other providers to provide safe and effective patient care.

Therefore, the following technical standards represent competencies necessary to complete the Pharm.D. professional program and provide additional guidance to the College Student Technical Standards Policy 3.11 for students. Students must be able, with or without reasonable accommodations, to consistently demonstrate these competencies. Students who fail to demonstrate these competencies are ineligible for admission or progression in the NDSU Doctor of Pharmacy (Pharm.D.) professional program. The technical standard competencies are organized into five general categories:

1. Perception/observation
2. Communication
3. Motor/tactile function
4. Intellectual, conceptual, integrative, and quantitative abilities
5. Behavioral and Social Attributes

1. Perception/Observation Competencies

Students must be able to utilize their senses and mental abilities to perceive and observe information presented through:

- Written material
- Audiovisual material
- Demonstration
- Large-group lectures
- Small group discussions and presentations
- One-on-one interactions
- Laboratory experiences
- Patient encounters (at a distance or close at hand)
- Procedures

2. Communication Competencies

Students must be able to communicate effectively and efficiently (in English) using nonverbal, verbal, and writing strategies with faculty members, other members of the healthcare team, patients, families, and other students, in order to:

- Produce written and oral communication
- Elicit information
- Convey information
- Clarify information
- Create rapport
- Work collaboratively
- Develop therapeutic relationships
- Demonstrate computer literacy

3. Motor/Tactile Function Competencies

Students must have sufficient motor function, skills, and tactile ability to execute basic tasks in the training and provision of patient care. This includes coordination of both gross and fine muscular movements, equilibrium, and functional use of the senses of touch and vision in order to:

- Attend and participate in classes, groups, and activities which are part of the curriculum.
- Conduct basic laboratory procedures and tests.
- Perform basic, non-sterile compounding.
- Demonstrate aseptic technique.
- Examine patients (including inspection, auscultation, palpation, percussion, and other diagnostic maneuvers).
- Administer immunizations, perform cardiopulmonary resuscitation, perform palpitation, auscultation, and percussion.
- Provide patient care appropriate to the circumstances.
- Perform in a reasonably independent way in potentially high speed/high demand/emergency environments.

4. Intellectual, Conceptual, Integrative & Quantitative Competencies:

Student must be able to demonstrate higher-level cognitive abilities, which include:

- Memory
- Rational thought
- Visual-spatial comprehension
- Conceptualization
- Application
- Measurement
- Calculation
- Analysis
- Representation (oral, written, diagrammatic, three dimensional)
- Organization
- Synthesis
- Clinical reasoning
- Ethical reasoning

5. Behavioral and Social Competencies

Students must consistently demonstrate attributes of professionalism, including:

- Empathy, compassion, integrity, and respect for others.
- Preparation, initiative, and accountability consistent with a commitment to excellence.
- Commitment to legal and ethical principles pertaining to the provision of patient centered care.
- Mindfulness of the environment, recognizing that one's professionalism is constantly evaluated by others.

Reasonable Accommodations under the Americans with Disabilities Act (ADA)

The College strongly encourages any student who suspects that he or she may have a disability to contact the NDSU Office of Disability Services for guidance concerning the steps that are necessary to document and verify the nature and extent of the disability. Consistent with NDSU and Federal policies, students with documented evidence of disabilities may request reasonable accommodations. However, such requests are not reasonable if they disrupt, are detrimental to and/or endanger patients, students, co-workers and/or instructors, or otherwise cause a fundamental alteration to the program.

Failing to Meet, Reporting and Adjudicating Technical Competencies

Applicants and students of the Pharmacy Doctorate professional program who consistently fail to demonstrate the competencies identified above are ineligible for admission or progression in the program. Students who are admitted to the Pharmacy Doctorate professional program and who **realize** (either

through their own efforts or as demonstrated by a licensing board, a preceptor or a faculty member in the program) that they do not (or no longer) **consistently** demonstrate the requisite technical competencies to be eligible for licensure have an ethical obligation to self-report that information to the College's administration (i.e., the appropriate department chair and/or the Senior Associate Dean). **Once realized** (through own awareness or as reported to them by a licensing board, faculty, or preceptor), failure to self-report a **consistent** lack of technical competencies represents a violation of the Student Conduct Policy (College Policy Manual, Policy 3.01).

EXAMINATION ADMINISTRATION POLICY 3.30

The purpose of this policy is to provide expectations for student conduct related to examinations and ensure examinations given at the School of Pharmacy are adequately and consistently administered. Aside from maintaining academic integrity, examination procedures prepare the student for the stringent expectations of the professional licensure process.

I. Technology Requirements

1. Students must possess an iPad or laptop and accessories that meet the School of Pharmacy requirements.
2. Students must install and maintain a current version of the electronic testing software utilized for ExamSoft exam delivery on any device that will be used during an exam.
3. Students should be familiar with their iPad or laptop, testing software, and instructions prior to downloading an examination.
4. Students are expected to:
 - a. Have an A/C power cord available AND a fully charged battery (at least 2 hours) for cases in which there is a power disruption during the examination OR an electrical outlet is not near the student's assigned seat.
 - b. Ensure that the internal clock is set to the correct date and time (CST/CDT).

II. Timing and Attendance at Examinations

1. Students requiring accommodations are to coordinate with the office of Disability Services prior to the delivery of the examination (NDSU Policy Manual Section 606).
2. Students are expected to be present for all examinations unless otherwise stated by the course instructor. All absences require appropriate documentation and instructor approval (NDSU Policy Manual Section 333).
 - a. Students missing an examination due to an EXCUSED absence will be permitted to take a make-up examination timed at the discretion of the instructor.
 - b. Students missing an examination due to an UNEXCUSED absence may be granted the privilege of taking a make-up examination; however, the student will be subject to a penalty on their exam score.
 - c. In any case where a delayed or makeup examination is necessary, a comparable but different examination may be given. Faculty may assess in a different format from the original exam (e.g. multiple choice may be replaced with essay questions).
 - d. In the case that assessments are delivered remotely (for health-related concern or other special circumstance), another in-person arrangement will be explored, and if not feasible, then ExamMonitor technology will be utilized on a laptop meeting minimum technologic standards. This must be coordinated with the course coordinator in advance (as soon as possible, and preferably 2-3 days prior to the exam date) of any assessments that necessitate ExamMonitor remote proctoring services.
 1. In the event of reduced classroom capacity, individual students may be assigned by the instructor to remote exam testing.
3. Students must be on time for examinations. Students arriving more than 15 minutes late, without proper justification, will be subject to penalty. Student's arriving late must take the examination in a location determined by the individual administering the exam. Unless extenuating circumstances are cause for the delay and were unavoidable, they will receive no additional time.
4. Examination start times will not be delayed due to a hardware or software problem with a student's iPad or laptop. Students encountering a technical issue during an exam should notify the individual administering the exam. *See Technology Issues.*
5. Students are responsible for bringing their iPad or laptop to the examination room with the exam file already downloaded. Additional time will not be granted for downloading exam files when it was available prior to the exam session.

III. Examination Procedures

1. Faculty are responsible for being attentive to students during an exam.
2. Students may be asked for identification or sign an attendance log at any time.
3. Students are expected to maintain a decorum and demeanor consistent with accepted academic and professional standards at all times during examinations (NDSU CHP Policy Manual Section 3.9). Lack of professional decorum may result in dismissal from the exam, which will be considered an unexcused absence.
4. Students may be randomly seated during an examination.
5. An examination may take place during a time that is not part of their regular course schedule. This will be determined by the faculty and will be conveyed in the course syllabus.
6. Students are allowed **ONLY** the following items at their workspace:
 - a. iPad or laptop devoid of taped-on notes or markings that could be construed as “cheat sheets”
 - b. Power adapter
 - c. Standard (non-mechanical/non-refillable) #2 pencils
 - d. The following items may be allowed if deemed necessary by the course instructor:
 1. Scratch paper if allowed would be provided by the faculty member as colored paper and must be turned in and signed at the end of the exam
 2. Non-programmable calculator
 3. iPad or laptop stylus
7. Students must remove ALL personal items from their examination area. Restricted items includes, but is not limited to:
 - a. Food and drinks
 - b. Books, notes, study aids, etc. (unless specifically permitted by the instructor)
 - c. Mechanical/refillable pencils/pens/pencil cases
 - d. Hats/caps (unless worn for religious purposes)
 - e. Watches (regardless of type)
 - f. Electronic devices
 1. Activity tracking devices
 2. Cell phones
 3. Programmable/graphing calculators
 4. Any other devices capable of storing/transmitting/receiving information
8. Students may be asked to turn out pockets, remove outerwear and/or hood, change position, or provide other means of assurance to demonstrate compliance with this policy. One’s body should be void of writing in reference to exam content. All items are subject to inspection.
9. Proctors may confiscate restricted items until the exam is completed. Possession of restricted items will be considered a lack of proper decorum and be subject to penalty. Serious breaches (e.g. cheat sheet) will result in dismissal from the examination.
10. If the instructor decides to address a student inquiry related to interpretation or context of exam they shall address the answer to the entire class. Questions may only be addressed before the first student completes the examination.
11. Students witnessing suspected cheating should notify the proctor discreetly and immediately.
12. Students will not be excused from the exam room without good reason. Those granted permission, should turn over all papers or enable the “Hide Exam” function so it cannot be viewed by a classmate. No more than one student will be allowed to leave the examination room at one time. During absence, students should not use any communication device or consult any reference.
13. Students must turn in all requested materials (e.g. exam, answer sheet, scratch paper, equation sheets) prior to exiting the examination room.
14. When completing the exam, students must submit and have receipt of their uploaded exam confirmed by the individual delivering the exam before leaving the exam room. Students who experience difficulty submitting their exam will be referred for technical assistance.
15. After submitting the exam, a student must leave the examination room and any adjacent area to prevent disturbing those students still taking the examination.

IV. Technology Issues

1. If a student is unable to download the examination file or there is an iPad or laptop failure after downloading examination file but prior to the examination start time, the student should contact the course instructor **PRIOR** to the examination start time.
2. If an iPad or laptop freezes or fails during an examination:

- a. Bring device to the proctor at the front of the room
- b. Restart the device (instructor will note amount of time needed for restart).
- c. If unable to restart and resume the examination, leave the device at the front of the room and obtain a paper copy of the examination.

V. Academic Dishonesty

1. Students are expected to adhere to the Student Academic and Conduct Standards Policy (NDSU CHP Policy Manual Section 3.01).
2. Students should avoid behaviors that give the appearance of cheating (e.g. talking during exams, wandering eyes) and should take measures to protect their own work.
3. Violations of the Conduct Standards will be reported to the Senior Associate Dean and reported via the Professional Misconduct tracking form.
4. Instructors may move students during the examination to avoid or suspend possible instances of cheating. If a widespread breach of the Conduct Standards is suspected, particularly in the case of emergency matters/evacuation, the instructor may cancel the remainder of the examination and reschedule a new exam at a later date (NDSU Policy Manual Section 335).

VI. Interruptions During an Examination

1. If a fire alarm or other emergency condition occurs during an examination, either paper or electronic-based, students will immediately cease taking the examination and evacuate the building. All materials should be turned over and left on the desk.
2. Students may be asked to evacuate to a specific location. Students are to remain in full view of the individual administering the exam where they can hear the all clear announcement.
3. Students may not discuss the examination with any other person or access any materials including electronic devices.
4. After the fire alarm or other cause of interruption has ended, students will return to their assigned seat immediately and if possible, resume the examination when announced by the proctor to do so. Students returning later than 10 minutes following the "all clear" signal may be excluded from continuing the examination.
5. The examination will add additional time equal to that lost during the interruption, if time permits. Students returning late will not receive additional time above that given to all students.
6. In the event of a prolonged interruption of 15 min without a foreseeable resolution, the examination should be cancelled and rescheduled for a different date.

VII. Penalties

1. Instructors are encouraged to outline penalties for examination infractions within their course syllabus. An example of infractions and associated penalties are listed in **Table 1**.
2. All infractions, regardless of penalties should be reported by the instructor through the Professional Misconduct Tracking Form within seven days of occurrence.

Table 1.

| | |
|--|---|
| More than 15 minutes late to a scheduled examination | 10% deduction from student's earned exam score |
| Faculty has some concern regarding possibility of academic misconduct (example: student has a watch, cell phone, etc. available during the examination) | 15% deduction from student's earned exam score |
| Student has an unexcused absence during the examination | 30% deduction from student's earned exam score |
| There is a high likelihood or evidence of academic dishonesty (2-way communication, written resource, cheat sheet, evidence of cheating from ExamSoft data analysis) | Exam score of 0% and reported to the Associate Dean for Academic Affairs, with potential for additional course-specific penalties |

INTERN LICENSURE POLICY 3.31

PharmD students must register annually as a student intern with the North Dakota State Board of Pharmacy and must continuously hold valid licensure as a pharmacy intern in North Dakota for the duration of the professional program. Students must pay all ND Board internship fees with no lapse in coverage. Students with experiential placement in states outside of North Dakota must also register and pay for an intern license in those states. Failure to hold a valid North Dakota Intern license violates the North Dakota Century Code: 61-03-03.1-02. Licensure The professional pharmacy program may require you to renew your intern licensure immediately prior to the start of the P1 year.

PROFESSIONAL LIABILITY INSURANCE POLICY 3.32

NDSU School of Pharmacy faculty are provided professional liability coverage under the Risk Management Fund pursuant to North Dakota Century Code 32-12.2 (<https://www.nd.gov/omb/agency/risk-management-services/risk-management-fund> and <https://www.nd.gov/omb/agency/risk-management-services/other-insurance>). Employees must be acting within the scope of their employment to be eligible for coverage; applicable duties must be in the employees' job description. Faculty who perform professional services within the context of their NDSU employment, but are not explicitly identified in their official job descriptions may not be covered under the Risk Management Fund. Faculty are required to carry professional liability insurance when performing these services.

Similarly, the state of North Dakota provides professional liability insurance coverage to its NDSU PharmD students performing professional services as part of their pre-approved educational program. This is defined as the required didactic and experiential curricula. PharmD students who perform professional services considered outside of their educational program requirements will find those professional services ineligible for coverage under this policy. This includes (but is not limited to) elective co-curricular activities, student organization activities, and other community outreach activities. Professional pharmacy students must carry professional liability insurance for the duration of their studies in the Doctor of Pharmacy program. Students are encouraged to seek coverage under policies provided or promoted by their professional organizations (APhA, ASHP, etc.), who offer reasonable coverage limits and affordable premiums.

In all cases, faculty and students are encouraged to obtain professional liability insurance whose coverage limits are at least \$1 million per incident, and \$3 million in aggregate coverage, per year.

CERTIFICATION

Pharmacy students must obtain and maintain certification for American Heart Association (AHA) Basic Life Support (BLS) for Healthcare Providers. Each student is responsible for securing certification and for submitting verification of certification to the pharmacy practice department office (Sudro 118A) during the first professional year of the program and upon renewal while enrolled in the pharmacy program. The department of pharmacy practice office will provide students with additional information regarding CPR certification and renewal during the first and third professional years.

HEALTH VACCINES/EXPOSURE TO BIOHAZARD

During portions of the training program for Pharm.D. students, a student may be exposed to blood and body fluids of patients. Along with this exposure is the risk of Hepatitis B infection. Documentation of the completed Hepatitis B vaccination series or a signed waiver is required prior to participation in experiential education. The full vaccination against Hepatitis B requires a six-month series of three shots. You can obtain the Hepatitis B vaccine from your healthcare provider, or from the NDSU Student Wellness Center. If you choose to receive your immunizations at the Student Wellness Center, appointments are required.

Testing is required for TB (tuberculosis) annually for students in the Pharm.D. program. Pharm.D. students are required to complete a two-step tuberculosis screening during their first professional year, a one-step tuberculosis screening during their second professional year and a final two-step tuberculosis screening at the end of their third professional year. Pharm.D. students may also be required to complete additional tuberculosis screenings and/or immunizations as required by the practice sites.

All students are required to provide a copy of their immunization records and relevant titers before beginning coursework in the Pharm.D. program. Request copies of your childhood/adolescent immunizations and any immunizations you have received as an adult, and titers from your healthcare provider(s). These records **must** be from a healthcare provider. Examples of this would be from Student Health, clinic records, *myChart* documentation, or State Certificate of Immunization record. We cannot accept records from high schools or wallet type cards that have been kept by family members.

Students may contact the Experiential Office at (701) 231-5576 after June 5 with any questions regarding these records. Please note: We cannot discuss your medical records with any other individuals, including parents or family members.

- All students are required to provide documentation of their immunization records and relevant titers before beginning coursework in the PharmD program.
- Students must retain and maintain documentation of these records throughout their progression in the pharmacy program.

- Experiential Education sites require students to provide proof of immunity prior to completing Introductory and Advanced Pharmacy Practice Experiences. Your healthcare provider can help you to determine and/or meet these requirements. Please take this information sheet with you to any related provider appointments.
- Experiential Education sites may have additional immunization requirements beyond those listed here. Students are required to meet all practice site requirements prior to practice experiences.
- Students are responsible for all costs associated with meeting requirements of the program and/or practice sites for proof of immunity. Immunization and titer pricing may vary between facilities. Coverage for immunizations and titers may vary between insurance companies.

| Immunizations | Required Documentation |
|--|--|
| REQUIRED IMMUNITY | |
| Hepatitis B (HBV) | <input type="checkbox"/> A 3-dose series is required. (If you have not received this vaccination, you must complete the first dose of the 6-month series prior to August 1 and the second dose by September 15. The third dose must be completed by March 15) AND <input type="checkbox"/> A positive antibody test (titer) <i>Please let your provider know that you need to be tested for immunity to hepatitis B, not active disease.</i> <i>*If titer is non-positive (negative or equivocal) students will need a booster followed by a second titer. If second titer is non-positive (negative or equivocal), further direction will be provided of documentation that is required.</i> |
| Measles, Mumps, Rubella (MMR) | <input type="checkbox"/> Two (2) doses of measles/mumps/rubella (MMR) vaccine received if born after 1957. |
| Tetanus, Diphtheria, Pertussis (Tdap) | <input type="checkbox"/> One dose of tetanus, diphtheria, pertussis (Tdap) vaccine given at age 11 or older, followed by Td (Tetanus only) every 10 years. <i>Note: Tdap is not the same as the other vaccines containing some or even all of the vaccine components (D-T-A-P) such as DTap, Td, or DT</i> |
| Varicella (Chickenpox) (VAR) | <input type="checkbox"/> Two (2) doses of Varivax (chickenpox vaccine) AND *Students with a history of disease and no Varivax immunization must provide a positive titer for Varicella. |

In addition to the above required immunizations and/or titers, students will be required to complete and provide documentation of TB (tuberculosis) screening before beginning any experiential education rotation. The due dates for this screening will be announced annually. You do not need to provide TB test documentation before entering the Pharmacy Program. Annual influenza immunization is strongly recommended for all PharmD students during flu season and is required for APPE students.

Directions for Providing Proof of Immunity Documentation

Request documentation of your childhood/adolescent immunizations and any immunizations and/or titers you have received as an adult. You **MUST** begin to collect this information in **as soon as possible** in order to ensure that you meet program requirements and deadlines.

This documentation can be obtained by one of two methods:

Immunization Documentation:

1. **(Preferred Method) Individual State Department of Health Immunization Records.** These one-page records are based on data supplied from medical facilities/providers. Please see the enclosed directions for how to request information from the state in which you received vaccinations as a child and/or adult. Please note: If you have lived in more than one state or received services in more than one state, then you may need to contact the state Department of Health for each state you lived in or received services in to ensure you have complete/accurate records. *If the individual state department of health immunization records are missing one or more immunizations, you will need to also request your immunization records directly from your healthcare provider to ensure complete/accurate records.*
2. **Directly from a healthcare provider.** Examples include documentation from student health, clinic records, or myChart documentation. **Documentation must clearly identify the health care facility from which the records were obtained and include full patient name.**

Titer Documentation:

1. **Directly from a healthcare provider.** Examples include documentation from student health, clinic records, or myChart documentation. **Documentation must clearly identify the health care facility from which the records were obtained and include full patient name.**

We cannot accept records from high schools or wallet type cards that have been kept by family members.

When you have received all of these records from either individual state department of health immunization records or your healthcare provider(s), retain these copies for required submission to the School of Pharmacy. Specific directions for how to submit this documentation through Castlebranch for verification will be provided.

Directions for accessing State Immunization Records

The Department of Health records are based on data supplied from medical facility/providers. Not all medical facilities/providers supply data to the Department of Health. In addition, most medical facility/providers only provide data to the state they are located in. Please note: If you lived in more than one state or received services in more than one state, then you may need to contact the state Department of Health for each state you lived in or received services in to ensure you have complete/accurate records. ***If the individual state Department of Health immunization records are missing one or more immunizations, you will need to also request your immunization records directly from your healthcare provider to ensure complete/accurate records.***

The state of ND began collecting immunization information in the Immunization Information System in 1996 and the state of MN began collecting immunization information in the Immunization Information System in 2003.

- For North Dakota:
 - ND Dept. of Health Immunization Record Request site: <https://www.ndhealth.gov/Immunize/Public/ImmRecord.aspx>
 - Complete the Request for Immunization Records Form
 - Please be sure you read the directions carefully and physically sign the form.
 - If you have any questions, you may call 800-472-2180
 - or-
 - Going through the local public health unit at Fargo Cass Public Health: <http://fargond.gov/city-government/departments/fargo-cass-public-health/clinicservices/immunizations>
 - Complete the Online Immunization Record Request Form
 - Office Information
- Address: 1240 25th St S, Fargo, ND 58103
 Phone #: 701-241-1360
 Office Hours: Monday — Friday, 7:45 a.m. — 4:30 p.m.
- For Minnesota
 - MN Dept. of Health Immunization Record Request site: <https://www.health.state.mn.us/people/immunize/miic/records.html> o Complete the [MIIC](#) Immunization Record Request
 - If you have any questions, please call the MIIC Record Request Line at 651-201-3980 or email Health.immrecords@state.mn.us
 - If you are interested in stopping into an office, please call before stopping in. You can view the current listing of District Offices [MN Department of Health District Office Locations](#)
 - All other states:
 - Locate your Dept. of Health state web site here: <https://www.cdc.gov/vaccines/programs/iis/contacts-registry-staff.html>

SCHOLARSHIPS AND AWARDS

The College of Health Professions has a limited number of scholarships and awards available for assistance to students. Applications for scholarships and awards are available beginning with the second Monday in April and ending on the Friday after spring graduation: (www.ndsu.edu/healthprofessions).

NOTE: Specific information related to criteria for selection of scholarship recipients is available in the Office of Development in Sudro Hall.

TECHNOLOGY REQUIREMENTS FOR PHARMACY STUDENTS

The PharmD program has explored options to expand student technology capabilities. In particular, the need for assessment flexibility during extraordinary times such as the COVID pandemic. In preparation for the possibility of the continued need for testing remotely, the NDSU School of Pharmacy is asking for you to have a **laptop computer** (either a PC or Mac) for the upcoming year and beyond. **Access to an iPad is no longer a requirement for the PharmD program.**

A laptop computer provides us the opportunity to deliver proctored remote examinations, expand functionality of Blackboard for teaching and learning, increase connectivity to classroom technology (AG Hill Center, etc.), and remotely administer standardized NABP exams such as the PCOA, Pre-NAPLEX, and Pre-MPJE.

In the event that course instruction and testing require **online delivery**, students must have access to a **laptop, Wi-Fi connection, and a quiet testing environment**. The computer must **not** be a desktop or tablet (e.g. Apple (iPad), Windows, Android, Chrome or Linux operating system-based tablets are not permitted). Surface laptops (Microsoft) that come with non-detachable keyboards are permitted. The following are requirements of your laptop established by ExamSoft. It can be either a PC or Mac.

The following are requirements of your laptop established by ExamSoft. It can be either a PC or Mac.

- a. Hard Drive: 4 GB or higher available space
- b. RAM: 8 GB or higher recommended; 4 GB required
- c. Webcam
- d. Microphone
- e. Internet: 2.5 Mb/s upload speed
- f. Download the program: Exemplify version 2.7 or greater

Operating Systems

Windows

- Operating System: 32-bit and 64-bit Versions of Windows 10. Only genuine versions of Windows Operating Systems are supported (**Alternate versions of Windows 10, such as Windows RT and Windows 10 S, are NOT supported at this time.**)
- The English (United States) Language Pack must be installed
- Exemplify cannot be run within virtualized environments or environments that require persistent network (local or otherwise) connections during secure exams. This includes, but is not limited to, VMWare, Parallels, Citrix workspace, Virtual Disks, Streamed images, etc.

Mac OS

- MacOS 10.13 (High Sierra) or later

Administrator rights

Exemplify must be installed with a user account that has Administrator level rights. Instructions to change your user account rights are described below:

Windows

1. Open the **Start Menu**.
2. Click on **Settings** to open Windows 10's **Settings** utility.
3. Click on **Accounts**.
4. In the left pane of the window, click on **Family & other people**.
5. Under the **Other people** section in the right pane, locate and click on the Standard User account you want to make an Administrator.
6. Click on **Change account type**
7. Open the dropdown menu located directly under the **Account type** option and click on **Administrator** to select it.
8. Click on **OK**.
9. Close the **Settings** utility.

Mac OS X

1. Click on the Apple button in the menu bar and select **System Preferences**
2. Select **Accounts**
3. Click the lock to make changes, enter the admin username and password and click on the OK button
4. Select the user account you need to give admin rights to.
5. Check the **Allow user to administer this computer** check box, click on OK on the pop-up box, log out then log in again.
6. The user should now have admin rights on the computer.

If you are looking for additional guidance for which laptop computer to purchase, the NDSU Bookstore is an official retailer of both PC and Mac. <https://www.ndsubookstore.com/personalcomputers>. Please consider compact size and ease of portability when choosing a laptop to fit on desk spaces within the classroom. PCs, in general, are more widely capable of working with programs used by School of Pharmacy faculty.

For more information about computers and electronics available through the NDSU Bookstore, please contact them at 701-231-8013 or send an e-mail to brad.sonmor@ndsu.edu. If you have any questions, please contact Interim Associate Dean for Academic Affairs Dr. Michael Kelsch (Michael.Kelsch@ndsu.edu).

Lastly, a word about software packages/apps needed for the laptop. Initially, you will “need” only a few Apps, many which are free. At the minimum, you will need:

- Microsoft Office Suite: NDSU students can also download Microsoft Office for FREE! Check the following for details: https://www.ndsu.edu/its/software/software_licensing_program/microsoft/office_proplus/
- Chrome browser is preferred
- “Adobe Reader” to view PDF documents
- TurningPoint (mobile clicker): <https://www.turningtechnologies.com/turningpoint-app/>

TUITION

In 2012 the North Dakota Board of Higher Education approved a differential tuition for the pharmacy professional program which is higher than the standard university tuition rate. Differential tuition is needed to cover the higher costs associated with a professional degree program. This differential tuition does not include other student fees, room and boards, and miscellaneous expenses. As noted earlier, students are expected to complete certain degree requirements including Introductory Pharmacy Practice Experience (IPPE) and Advanced Pharmacy Practice Experience (APPE) during summer months in addition to the regular academic year. Starting with the fall 2013 semester, students should expect to be charged (and to pay) differential tuition on course credits for all professional program degree requirements regardless of the term in which credits are earned. The amount of differential tuition in an academic term can be found on the NDSU Financial Aid and Scholarships website: www.ndsu.edu/onestop/accounts/. There is a non-refundable admission deposit fee of \$500 for students who have been accepted to the pharmacy program. This fee is to assure their place in the class and will be applied to the differential tuition for the first semester of the professional program.

NDSU ENTRY-LEVEL PHARM. PROGRAM
Early Admission Pathway Pre-Pharmacy Curriculum
2021-2022

Two Year Track (4 Semesters + 1 Summer Session; 77 credits which includes 3 cr. for Engl 110)

| FIRST YEAR (34 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 ¹ * | 3 | Comm 110, Fundamentals * | 3 |
| Math 146, Applied Calculus I * | 4 | Econ 201, Microeconomics * | 3 |
| CHP 190, Critical Thinking & Academic Success | 2 | Stat 330, Introductory Statistics * | 3 |
| | 17 | | 17 |

SUMMER SESSION – PCAT Exam

Elective – Humanities and Fine Arts, 3 Credits (If not already completed or will take during another semester.)

¹ Students who complete English 120 with a “C” or higher will receive credit for English 110 with a passing grade (P).

| SECOND YEAR (37 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 |
| Elective - Social & Behavioral Sciences/Cultural Diversity | 3 | PHRM 324, Writing and Professionalization in Pharmacy (with Pharmacy Interviews) | 3 |
| Micr 350/350L * | 3/2 | Elective – Humanities and Fine Arts | 3 |
| Wellness | 2 | Phys 211, College Physics I | 3 |
| | 19 | | 18 |

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

*Differential tuition applies to second year of coursework

NDSU ENTRY-LEVEL PHARM.D. PROGRAM
Pre-Pharmacy Curriculum
2021-2022

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 ¹ | 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 |

¹ 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 |
| Elective - Social & Behavioral Sciences/Cultural Diversity | 3 | Phys 211, College Physics I | 3 |
| Elective – Humanities & Fine Arts | 3 | <i>Credits towards Minor</i> | 3 |
| <i>Credits towards Minor</i> | 3 | | |
| | 17 | | 16 |

| THIRD YEAR (35 credits) | | | |
|-------------------------------------|-----------|---|-----------|
| FALL | Cr | SPRING | Cr |
| Bioc 460, Biochemistry I | 3 | Bioc 461, Biochemistry II | 3 |
| Micr 350/350L * | 3/2 | Engl 324 or 325, Upper Division English | 3 |
| Stat 330, Introductory Statistics * | 3 | <i>Credits towards Minor</i> | 12 |
| <i>Credits towards Minor</i> | 6 | | |
| | 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.”)

ADMISSIONS POLICY

The pre-pharmacy curriculum is open to all high school graduates and college transfer students who have not completed the requirements to enter the professional pharmacy program. To enter the pre-pharmacy program the student must qualify for and obtain admission to the University. Applications to NDSU may be obtained from the NDSU Office of Admission.

Admission to the professional pharmacy program is competitive and limited to 85 students each year. Students are selected based upon successful prior academic performance at the time of admission. There are two paths to gain admission into the pharmacy program.

Early Admission Pathway (EAP) to the Professional Entry-Level Pharm.D. Program

The first is our “early admission” path. This path is an early assurance path designed for high achieving high school students who seek an expedited path to the professional program. Students are selected for this path based on their academic credentials (including high school grade point averages and ACT or SAT scores) at the time they apply to NDSU. Preference is given to North Dakota residents. Supplemental applications are submitted online directly to the Pharmacy Admissions Committee. A nonrefundable \$125.00 application fee must accompany the supplemental application. Students are evaluated during the summer before they enroll at NDSU as first year students, and will be offered admission to this path on or before May 15 of that year. Once accepted on this admission path, students must attend NDSU for the entire six-year program. The first year entails standard pre-professional studies. At the conclusion of the first year, students who maintain academic and professional requirements transition into a five-year professional program. **Differential tuition is assessed for the final five years of the professional program (i.e., the second year of the EAP program and all subsequent years).** During the first year in the professional program, students complete all remaining pre-professional requirements, including an expedited set of courses that prepare them for the final four years of the professional program. Students also complete the Pharmacy College Admissions Test (PCAT) and an on-site interview. As long as students meet all academic and professional requirements, the student is assured a seat in the corresponding P1 cohort. Students accepted into the “early admissions” path, but who fail to meet all academic and professional requirements, are encouraged to apply to the professional program through the second path described below.

The Post-Baccalaureate Pathway (New)

Students who will hold a four-year bachelor degree in a health or STEM field on or before May 2021 are eligible to apply for admission to NDSU’s PharmD program through a new, streamlined pathway. The pathway has fewer requirements because many of our admission requirements are implicitly met by students who have completed a bachelor degree in a health or STEM field. If an applicant holds a bachelor degree in a health or STEM field and is missing key pre-requisites, we offer a means to complete those courses in the summer before starting the PharmD program.

Note: the NDSU Pharmacy Program encourages applicants holding a four-year bachelor degree in an array of health or STEM fields, from any accredited college or university that offers four-year bachelor programs. Students who wish to pursue this pathway as an undergraduate major in the College of Health Professions may do so by completing the degree requirements for our Bachelor of Science in Health Services program.

Pharmacy Technician Pathway (New)

Are you a pharmacy technician who is eligible for pharmacy technician licensure in North Dakota, and who is interested in becoming a pharmacist? If so, this new pathway is designed to provide you with a streamlined pathway to meet the NDSU Pharmacy Program’s admission requirements. If you completed a pharmacy technician program at a college or university and received academic credit for your program, all of those credits will count towards meeting our admission requirements.

Traditional Admission Pathway to the Professional Entry-Level Pharm.D. Program

The second path is our “traditional” path. Pre-pharmacy students (including transfer students) typically apply for admission to the four-year professional program during the second (or in some cases the third) pre-

pharmacy year. Admission to the professional pharmacy program is competitive and limited to the difference between the number of available seats (85) and the number of "early admission" students entering the final four years of the professional program each year. Students are selected based upon successful pre-pharmacy academic performance. Preference is given to North Dakota residents and students who attend NDSU. A cumulative grade point average of 3.0 (4.0 = A) or above is required before an applicant will be evaluated for admission to the professional program. The actual admission cutoff is much higher. The Pharmacy College Admission Test (PCAT) is an admission requirement. Students must take the PCAT during the July or September testing dates. An on-site interview is part of the admission process for the professional program. Supplemental applications are due on or before December 31 for subsequent fall semester admission. Supplemental applications are submitted online directly to the Pharmacy Admissions Committee. A nonrefundable \$125.00 application fee must accompany the supplemental application.

Applicants should note that admission to the University **does not** grant admission to the Entry Level Pharm.D. Program. All students must apply and be formally accepted by the Pharmacy Admission Committee of the School of Pharmacy **before** they may begin the professional courses in the four years of the pharmacy program.

Students may apply to the School of Pharmacy for admission into the Professional Pharmacy program upon satisfactory completion of the pre-pharmacy program or evidence that this program will be successfully completed at either NDSU or another accredited college **prior** to admission. Students not previously enrolled at NDSU must apply **both** to NDSU (with a NDSU Application for Admission) and to the School of Pharmacy (with the Supplemental Pharmacy Application form).

Applications will be reviewed by the Pharmacy Admission Committee, which is composed of administrators, pharmacy practitioners, and pharmacy faculty in the basic, administrative and clinical sciences. The size of each entering professional class is limited by the availability of the resources of the School of Pharmacy and the capacity of the clinical facilities. NDSU is a state supported institution, thus, residents of North Dakota will be given primary consideration. Residents from other states who attend NDSU full time will also be given partial residency preference. A cumulative grade point average of 3.0 (4.0=A) or above is required before an applicant will be evaluated for admission to the Professional Entry Level Pharm.D. Program. The actual admission "cut off" is generally much higher than a 3.0.

Application Procedures

1. APPLICATION MATERIALS are available on PharmCAS and should be submitted by November 2nd. The student is responsible for seeing that ALL application materials are submitted and received by November 2nd. Applications with materials missing will not be considered for admission. Applications received after November 2nd may not be evaluated. Applications submitted after November 2nd will be used to fill remaining spots in the professional program if any are available after evaluating those applications submitted prior to the November 2nd deadline.
2. APPLICATION FEE – All PharmCAS fees must be paid before your application will be processed. A non-refundable \$125 application fee may be required for admission for non-EAP applicants.
3. If the applicant is not a current or former NDSU student, a separate application must be made for admission to NDSU through the NDSU Office of Admission.
4. Official transcripts from all universities and colleges attended must be sent to the NDSU Office of Admission AND to the College of Health Professions. The transcripts must contain the winter quarter or fall semester grades. *Students must show transcript evidence that all coursework required by the end of the spring term (courses listed by name and number) will be completed by the end of spring term.* The applicant must also supply official transcripts of spring term. It is the responsibility of the applicant to determine that all transcripts and other application materials (supplemental applications and completed PCAT scores) are submitted and updated if incomplete transcripts are initially submitted.
 - a. **Note: NDSU students not enrolled in the pre-pharmacy major must contact the Office of Registration & Records to request their transcripts be forwarded to the School of Pharmacy.**
5. The Pharmacy College Admission Test (PCAT) is required. Completed scores **must be sent** to the Chair of the Pharmacy Admission Committee. For information on the PCAT, contact us at 701- 231-7601. **The School of Pharmacy requires that students take the PCAT in July, September, or October 2020 as their most recent exam.** We will accept PCAT scores back three years (July 2017 to October 2020). The web address for the PCAT is www.pcatweb.info.
6. All courses must be completed with at least a grade of "C." Selected core courses, indicated by an asterisk (*) must be completed by the end of fall semester prior to the November 2nd deadline date 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 exceptions are the

electives which may be completed during the summer (up to six credits).

- An interview on campus is part of the evaluation process for students who receive final consideration for admission.

Notification of Acceptance

- Applicants are notified of their acceptance as rapidly as admission decisions are made.
- Acceptance Deposit:** Applicants who are offered a position into the entry-level Professional Pharm.D. program are required to submit a non-refundable deposit fee of \$500.00 to the School of Pharmacy to assure a place in the class. This deposit is typically due within 30 days of receipt of an admission letter. This fee will be applied to the differential tuition for the first semester of the professional program.
- Differential Tuition.** In 2012 the North Dakota Board of Higher Education approved a differential tuition for the pharmacy professional program which is higher than the standard university tuition rate. Differential tuition is needed to cover the higher costs associated with a professional degree program. This differential tuition does not include other student fees, room and boards, and miscellaneous expenses. As noted earlier, students are expected to complete certain degree requirements including Introductory Pharmacy Practice Experience (IPPE) and Advanced Pharmacy Practice Experience (APPE) during summer months in addition to the regular academic year. Starting with the fall 2013 semester, students should expect to be charged (and to pay) differential tuition on course credits for all professional program degree requirements regardless of the term in which credits are earned. The amount of differential tuition in an academic term can be found on the NDSU Financial Aid and Scholarships website: www.ndsu.edu/onestop/accounts/. **For Early Admission Pathway (EAP) students, differential tuition is assessed starting in the second undergraduate year of study, and is assessed thereafter (i.e., the final five years of study). For Traditional Pathway students, differential tuition is assessed once students are accepted into the first professional year (i.e., P1) of the Doctor of Pharmacy program.**
- An additional \$100 fee is required. It will be applied to the **first-year annual** fee for registration as a Pharmacy Student Intern in North Dakota, with the North Dakota Board of Pharmacy. Note: this \$100 annual fee for licensure as a student intern is required by the North Dakota Board of Pharmacy for four years of enrollment in the professional program. Once a student is accepted into the professional pharmacy program, he or she is expected to continuously hold a valid North Dakota Pharmacy Intern license for the entirety of their professional program.

Reapplication

A student who has made application to the professional program but is not accepted, who fails to enroll after being accepted or who was unsuccessful in the Early Admissions Pathway program (EAP), may reapply for admission to the professional program. Students are allowed to apply to the program twice (including the EAP). Regardless of whether or not a student meets the eligibility requirements, once a student pays the pharmacy application fee, that application officially counts toward the limit of two attempts. All academic and admission requirements in force at the time of his/her reapplication must be met.

PLEASE NOTE

The faculty reserve the right to change rules and regulations including those relating to admission, instruction and graduation. Such changes may apply to prospective students, as well as students already enrolled. Changes will be shared with students in a timely manner. However, it is the responsibility of the student to periodically contact their adviser or the Dean's Office to obtain current policies.

For further information, forward inquiries to the Chair of the Pharmacy Admission Committee, School of Pharmacy, College of Health Professions, North Dakota State University, Dept. 2650, PO Box 6050, Fargo, ND 58108.

PHARM.D. EDUCATIONAL OUTCOMES

This document defines the educational outcomes, or what students will be able to do upon completion of the Doctor of Pharmacy curriculum at North Dakota State University School of Pharmacy. The educational outcomes reflect competencies essential for an **entry-level** pharmacist in **any setting** to practice collaboratively as a member of an interprofessional team, provide patient-centered care, contribute to the health of diverse patient populations, demonstrate leadership, and effectively manage a complex work environment. A glossary of terms used in this document can be found in Table 1.

Domain 1. Foundational Knowledge

Students will be able to develop, integrate, and apply knowledge from the foundational sciences (biomedical, pharmaceutical, social/behavioral/administrative, and clinical sciences) to explain drug action, solve therapeutic problems, evaluate scientific literature, and advance population health and patient-centered care.

Specific Competencies:

- 1.1 Integrate knowledge from foundational sciences to explain how specific drugs or drug classes work and evaluate their potential value in individuals and populations.
- 1.2 Apply knowledge in foundational sciences to solve therapeutic problems and advance patient centered care.
- 1.3 Critically analyze scientific literature related to drugs and disease to enhance clinical decision making.
- 1.4 Demonstrate an understanding of scientific research and discovery.
- 1.5 Identify and critically analyze emerging theories, information, and technologies that may impact patient-centered and population based care.

Domain 2. Essentials for Practice and Care

2.1 Patient-Centered Care

Students will be able to provide patient-centered care as the medication expert (collect and interpret evidence, prioritize, formulate assessments and recommendations, implement, monitor and adjust plans, and document activities).

Specific Competencies

- 2.1.1 Collect and interpret subjective and objective evidence related to patient, medications, allergies/adverse reactions, and disease.
- 2.1.2 Prioritize patient health-related needs.
- 2.1.3 Formulate assessments and implement evidence based care plans and
- 2.1.4 recommendations. Monitor the patient and adjust care plan as needed.
- 2.1.5 Document patient care related activities.

2.2 Medication use systems management

Students will be able to manage patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems (i.e., procurement, storage, prescribing, transcription, dispensing, administration, monitoring, and documentation).

Specific Competencies:

- 2.2.1 Identify, compare, and contrast the components of typical medication use systems in different pharmacy practice settings.
- 2.2.2 Identify and utilize resources to optimize the safety and efficacy of medication use systems.
- 2.2.3 Manage medication use systems during patients' transitions of care.
- 2.2.4 Apply standards, guidelines, best practices, and established processes related to safe and effective medication use.
- 2.2.5 Utilize continuous quality improvement techniques in the medication use process.
- 2.2.6 Accurately select, prepare, and dispense medications (prescriptions, non-prescription, sterile, and non-sterile dosage forms).

2.3 Health and Wellness

Students will be able to design prevention, intervention, and educational strategies for individuals and communities to manage chronic disease and improve health and wellness

Specific Competencies:

- 2.3.1 Deliver systematic preventive care, using risk assessment, risk reduction, screening, education, and immunizations.
- 2.3.2 Provide prevention, intervention, and educational strategies for individuals and communities to improve health and wellness.
- 2.3.3 Evaluate personal, social, economic, and environmental conditions to maximize health and wellness.

2.4 Population-based Care

Students will be able to describe how population-based care influences patient-centered care and the development of practice guidelines and evidence-based best practices.

Specific Competencies:

- 2.4.1 Assess the healthcare status and needs of a targeted patient population.
- 2.4.2 Develop and provide an evidence-based approach that considers the cost, care, access, and satisfaction needs of a targeted patient population.
- 2.4.3 Participate in population health management by evaluating and adjusting interventions to maximize health.

Domain 3. Approach to Practice and Care

3.1 Problem Solving

Students will be able to identify problems; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution while considering ethical, legal, and cultural dimensions.

Specific Competencies:

- 3.1.1 Identify and define the primary problem.
- 3.1.2 Define goals and alternative goals.
- 3.1.3 Within the context of the problem, explore multiple solutions by organizing, prioritizing, and defending each possible solution.
- 3.1.4 Identify possible positive and negative outcomes by reviewing assumptions, inconsistencies, and unintended consequences.
- 3.1.5 Implement the most viable solution, including monitoring parameters, to measure intended and unintended consequences.
- 3.1.6 Reflect on the solution implemented and evaluate its effects to improve future performance.

3.2 Education

Students will be able to educate all audiences (e.g., patients/caregivers, technicians and interns, pharmacy students, fellow pharmacists, other healthcare providers, legislators) by determining the most effective and enduring ways to impart information and assess learning.

Specific Competencies:

- 3.2.1 Assess the need for pharmacist-delivered education.
- 3.2.2 Retrieve, analyze, and interpret the professional, lay, and scientific literature to effectively communicate information to a specific audience.
- 3.2.3 Select the most effective techniques/strategies to achieve learning objectives for education given to a specific audience.
- 3.2.4 Deliver the education to the intended audience.
- 3.2.5 Assess audience comprehension to ensure effective instruction/education was achieved.

3.3 Patient Advocacy

Students will be able to represent the patients' best interests.

Specific Competencies:

- 3.3.1 Empower patients to take responsibility for, and control of, their health.
- 3.3.2 Assist patients in obtaining the resources and care required in an efficient and cost-effective manner.

3.4 Interprofessional Collaboration

Students will be able to actively participate and engage as a healthcare team member by demonstrating mutual respect, understanding, and shared values to meet patient care needs.

Specific Competencies:

- 3.4.1. Establish a climate of accountability, mutual respect, and shared values with members of the interprofessional team to meet patient and population care needs.
- 3.4.2. Incorporate the knowledge, skills, and abilities of each member of the interprofessional team to provide care that is safe, timely, efficient, effective, and equitable.
- 3.4.3. Communicate in a manner that values team-based decision making and shows respect for contributions from other areas of expertise.

3.5 Cultural Sensitivity

Students will be able to identify and appropriately adjust the content and delivery of pharmacy services based on the unique socio-cultural characteristics of the patient receiving care.

Specific Competencies

- 3.5.1 Recognize the collective identity and norms of different cultures without overgeneralizing (i.e., recognize and avoid biases and stereotyping).
- 3.5.2 Demonstrate an attitude that is respectful of different cultures.
- 3.5.3 Assess a patient's health literacy and modify communication strategies to meet the patient's needs.
- 3.5.4 Appropriately incorporate patients' cultural beliefs and practices into patient care.

3.6 Communication

Students will be able to effectively communicate using verbal, nonverbal, and written methods when interacting with individuals, groups, and organizations.

Specific Competencies:

- 3.6.1 Demonstrate effective interpersonal skills when interacting with others to establish rapport and build trusting relationships.
- 3.6.2 Actively listen and ask appropriate open and closed-ended questions to gather information.
- 3.6.3 Interview patients using an organized structure, specific questioning techniques (e.g., motivational interviewing), and medical terminology adapted for the audience.
- 3.6.4 Communicate assertively, persuasively, confidently, and clearly.
- 3.6.5 Use available technology and other media to assist with communication as appropriate.
- 3.6.6 Elicit feedback, validating understanding of communication.

Domain 4. Personal and Professional Development

4.1 Self-Awareness

Students will be able to examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth.

Specific Competencies: [±]

- 4.1.1 Demonstrate motivation, attention, and interest (e.g. habits of mind) during learning and work-related activities.
- 4.1.2 Identify, create, implement, evaluate and modify plans for personal and professional development for the purpose of individual growth.
- 4.1.3 Demonstrate constructive coping strategies to manage stress and conflict.
- 4.1.4 Demonstrate flexibility and maturity in adjusting to change.
- 4.1.5 Recognize ambiguity is part of healthcare and respond by utilizing appropriate resources in dealing with uncertainty.
- 4.1.6 Demonstrate self-confidence when working with patients, families, and members of the healthcare team.

4.2 Leadership

Students will be able to demonstrate responsibility for creating and achieving shared goals, regardless of position

Specific Competencies:

- 4.2.1 Identify the history (e.g., successes and challenges) of a situation/organization before implementing changes.
- 4.2.2 Develop relationships, value diverse opinions, and understand individual strengths and weaknesses to promote teamwork.
- 4.2.3 Persuasively communicate goals to stakeholders to help build consensus.
- 4.2.4 Empower team members by actively listening, gathering input or feedback, and fostering collaboration.

4.3 Innovation & Entrepreneurship

Students will be able to engage in innovative activities by using creative thinking to envision better ways of accomplishing professional goals.

Specific Competencies:

- 4.3.1 Demonstrate initiative and creative decision making when confronted with novel problems or challenges.
- 4.3.2 Develop new ideas and approaches to improve quality.

4.4 Professionalism

Students will exhibit behaviors and values consistent with the trust given to the profession by patients, other healthcare providers, and society.

Specific Competencies: ^φ

- 4.4.1 Demonstrate empathy, compassion, integrity, and respect for others.
- 4.4.2 Demonstrate preparation, initiative, and accountability consistent with a commitment to excellence.
- 4.4.3 Demonstrate a commitment to legal and ethical principles pertaining to provision of patient centered care, including compliance with relevant laws, policies, and regulations.
- 4.4.4 Demonstrate mindfulness of the environment, recognizing that one's professionalism is constantly evaluated by others.
- 4.4.5 Actively participate in the profession and broader community.

[±] See Appendix I. for examples

^φ See Appendix II for examples

Approved: 9/2007

Source: Curriculum Committee; Pharm.D. Instructional Faculty Meeting

Revised: 3/2010; 1/2011; 5/2012; 12/9/14; 2/17/15

Table 1 - GLOSSARY

| Term | Definition | Reference(s) |
|--------------------------------|--|---|
| Advocacy | The act or process of supporting a cause, idea, policy, or person(s). | 1. Bzowycyk AS, Janke KK. A consensus definition and core competencies for being an advocate for pharmacy. <i>Am J Pharm Educ</i> 2013; 77(2): Article 24. |
| Clinical Sciences | The areas of the professional pharmacy curriculum focused on the integration and application of the foundational sciences (e.g. pharmaceutical and social, administrative, and behavioral sciences) to improve the human condition through the safe and efficacious use medications. | 1. American College of Clinical Pharmacy. The definition of clinical pharmacy. <i>Pharmacother.</i> 2008;28(6):816-817. 2. Accreditation Council for Pharmacy Education (ACPE). Accreditation standards and guidelines for the professional program in pharmacy leading to the Doctor of Pharmacy degree. 2007. http://www.acpe-accredit.org/pdf/ACPE_Revised_PharmD_Standards_Adopted_Jan152006.pdf . Accessed June 2013. |
| Competency | A complex set of behaviors built through the integration of knowledge, skills, and attitudes. A competency is observable, measurable, important, and necessary for the practice of pharmacy. | 1. Rowe C. Clarifying the use of competence and competency models in recruitment, assessment and staff development. <i>Industrial and Commercial Training.</i> 1995;27(11):12–17. 2. Carraccio C, Wolfsthal SD, Englander R, Ferentz K, Martin C. Shifting paradigms: from Flexner to competencies. <i>Acad Med</i> 2002; 77:361-7. 3. Albanese MA, Mejicano G, Mullan P, Kokotailo P, Gruppen L. Defining characteristics of educational competencies. <i>Med Educ.</i> 2008; 42:248-255. 4. Epstein RM, Hundert EM. Defining and assessing professional competence. <i>JAMA.</i> 2002; 287:226-35. |
| Constructive Coping Strategies | Consciously working to solve personal and interpersonal problems and minimize or tolerate stress | 1. Shaikh BT, Kahloon A, Kazmi M, Khalid H, Mawaz K, Khan N, Khan S. Students, stress, and coping strategies. <i>Educ Health.</i> 2004;17(3):346-53. |
| Culture | Sharing a collective identity, common history and experience, and shared beliefs, values, and norms. | 1. Smith WT, Roth JJ, Okoro O, Kimberlin C, Odedina FT. Disability in cultural competency pharmacy education. <i>Am J Pharm Educ.</i> 2011; 75(2): Article 26. |

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| Entrepreneurial skills | <p>Skills that entrepreneurs effectively exhibit such as: decision making, strategic thinking, risk taking, confidence building, communicating ideas, motivating team members, tolerance of ambiguity, taking responsibility for actions.</p> | <ol style="list-style-type: none"> 1. Vandel JH. Developing a spirit of entrepreneurship and a managerial attitude in students. <i>Am J Pharm Educ.</i> 1985; 49(4): 371-371. 2. Gartner WB, Baker T. A plausible history and exploration of Howard Stevenson's definition of entrepreneurship. <i>Frontiers of Entrepreneurship Research.</i> 2010; 30(4): Article 2. 3. Brazeau G. Entrepreneurial spirit in pharmacy. <i>Am J Pharm Educ.</i> 2013; 77(5): Article 88. |
| Habits of Mind | <p>The dispositions that are intentionally used by characteristically successful people when confronted with problems that have no immediately apparent solutions.</p> <p>These dispositions include:</p> <ol style="list-style-type: none"> 1. Persisting 2. Managing impulsivity 3. Listening with understanding and empathy 4. Thinking flexibly 5. Thinking about your thinking, emotions, and biases 6. Striving for accuracy 7. Questioning with critical curiosity; problem posing 8. Applying past knowledge to new situations 9. Thinking and communicating with clarity and precision 10. Attentively gathering data through all senses 11. Creating, imagining and innovating 12. Responding with wonderment and awe 13. Taking responsible risks 14. Finding humor 15. Thinking interdependently 16. Remaining open to continuous learning | <ol style="list-style-type: none"> 1. Mindful by Design. Defining Habits of Mind. Available at: http://www.habitsofmind.org/content/defining-habits-mind-close-look. Accessed May 2013. 2. Speedie MK, Baldwin JN, Carter RA, Raehl CL, Yanchick VA, Maine LL. Cultivating 'habits of mind' in the scholarly pharmacy clinician: report of the 2011-12 Argus Commission. <i>Am J Pharm Educ.</i> 2012; 76(6):S3. |

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| Health literacy | One of the social determinants of health referring to the degree to which an individual can obtain and process basic health information to understand and make appropriate health decisions. | 1. Consumer Health Informatics Research Resources (CHIRr). Available at: www.chirr.nlm.nih.gov/health-literacy . Accessed June 2013. |
| Help Seeking | Assessing needs and finding assistance when a deficit is identified that is associated with academic success. | 1. Payakachat N, Gubbins PO, Ragland D, Norman SE, Flowers SK, Stowe CD, et al. Academic help-seeking behavior among student pharmacists. <i>Am J Pharm Educ.</i> 2013; 77(1): Article 7. |
| Innovation | The act or process of introducing new ideas, devices, or methods. | 1. Merriam-Webster Dictionary Online. Innovation. Available at: http://www.learnersdictionary.com/search/Innovation . Accessed May 2013. |
| Interprofessional | Two or more professions working together collaboratively. Interprofessional is contrasted with the term interdisciplinary, which focuses on when two or more fields within the same profession interact. | 1. World Health Organization (WHO). Framework for action on interprofessional education & collaborative practice. Available at: http://www.who.int/hrh/resources/framework_action/en/ . Accessed June 2013. 2. Purden M. Cultural considerations in interprofessional education and practice. <i>J Interprof Care.</i> 2005; Supplement 1: 224 – 234. |
| Leadership | Leadership involves inspiring others. It is a function of knowing yourself, creating a culture of trust and open communication, having a vision that is well communicated, empowering others, taking a broad view of situations, and forming strategic alliances. | 1. Bennis, W. <i>On Becoming a Leader</i> . Reading, MA: Addison-Wesley Publishing Company; 1995. 2. Zgarrick DP. Chapter 2. Management Functions. In: Desselle SP, Zgarrick DP, Alston GL, eds. <i>Pharmacy Management: Essentials for All Practice Settings</i> . 3rd ed. New York: McGraw-Hill; 2012. |
| Management | Identifying, implementing, and overseeing resources to effectively accomplish specific projects or processes. | 1. Fincham JE. Leaders or managers for difficult times. <i>Am J Pharm Educ.</i> 2009; 73(2): Article 29. |
| Medication Use System | A complex process comprised of medication prescribing, order processing, dispensing, administration, and effects monitoring (e.g., intended or unintended effects). | 1. Institute for Safe Medication Practices. Available at: http://www.ismp.org/faq.asp#Question_3 . Accessed May 2013. |

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| Metacognition | Knowledge about one's own thinking processes and consciously planning, monitoring, and evaluating learning. | <ol style="list-style-type: none"> 1. Flavell, JH. Metacognition and cognitive monitoring. <i>American Psychologist</i>. 1979; 34: 906-911. 2. Garrett J, Alman M, Gardner S, and Born C. Assessing students' metacognitive skills. <i>Am J Pharm Educ</i>. 2007; 71(1): Article 14. |
| Learning Objective | Brief and specific statements that indicate what learners are expected to know or be able to do after taking part in an educational activity. Objectives may be cognitive, affective, or psychomotor. | <ol style="list-style-type: none"> 1. Wojtczak, A. Glossary of medical education terms: part 4. <i>Med Teach</i>. 2002; 24:567-68. |
| Learning (Educational) Outcome | Statements that describe what a learner should be able to do at the end of a program. | <ol style="list-style-type: none"> 1. National Institute for Learning Outcomes Assessment. Available at: http://www.learningoutcomesassessment.org/TFComponentSLOS.htm. Accessed May 2013. |
| Patient-centered Care | Any care that is respectful of and responsive to individual patient preferences, needs, and values, and ensures that patient values guide all clinical decisions. | <ol style="list-style-type: none"> 1. Institute of Medicine. Crossing the quality chasm: a new health system for the 21st century/Committee on Quality Health Care in America, Institute of Medicine. National Academy Press. Washington, DC, 2001. Available at: http://iom.edu/~media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf. Accessed May 2013. |
| Pharmaceutical Sciences | The integrative science disciplines (e.g., pharmaceutics, pharmacokinetics, pharmacology, toxicology, and medicinal chemistry) taught in the professional pharmacy curriculum that, collectively explain drug actions. The pharmaceutical sciences build on principles introduced in the preprofessional (chemistry, physics, biology) and biomedical (anatomy, physiology, biochemistry) sciences. | <ol style="list-style-type: none"> 1. Pandit NK, Soltis RP. <i>Introduction to the Pharmaceutical Sciences</i>. 2nd ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2011. |

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| Population-based Care | A comprehensive care approach where practitioners assess the health needs of a specific population, implement and evaluate interventions to improve the health of that population, and provide care for individual patients in the context of the culture, health status, and health needs of the populations of which that patient is a member. | 1. Association of American Medical Colleges (AAMC), Medical Informatics Panel and the Population Health Perspective Panel. Contemporary issues in medical informatics and population health: report II of the Medical School Objectives Project. <i>Acad Med.</i> 1999;74:130-141. |
| Population Health Management | A set of interventions designed to maintain and improve people's health across the full continuum of care—from low-risk, healthy individuals to high-risk individuals with one or more chronic conditions. ² | 1. Zeich R. Patient identification as a key to population health management. <i>New Medicine.</i> 1998; 2:109-116. 2. Felt-Lisk S, Higgins T. Exploring the promise of population health management programs to improve health. Available at: http://www.mathematica-mpr.com/publications/pdfs/health/PHM_brief.pdf . Accessed May 2013. |
| Social, Behavioral, and Administrative Sciences | The disciplines and concepts of public health, epidemiology, economics, financial management, health behavior, outcomes, biostatistics and research methods, law and ethics, healthcare administration, management, and operations, marketing, communications, medication distribution systems taught within the professional pharmacy curriculum. | 1. American Association of Colleges of Pharmacy. Social and Administrative Sciences Section. Available at: http://www.aacp.org/governance/SECTIONS/socialadminsciences/Pages/default.aspx . Accessed June 2013. 2. American Pharmacists Association. APhA-APRS Sections. Available at: http://www.pharmacist.com/apha-aprs-sections/ . Accessed June 2013. 3. Research in Social & Administrative Pharmacy (RSAP). About RSAP. Available at: http://www.rsap.org/ . Accessed June 2013. |

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|-------------------------------|---|--|
| Social Determinants of Health | Circumstances in which people are born, grow up, live, work and age, and the systems put in place to deal with illness. Examples include age, race/ethnicity, gender, socioeconomic status, health literacy, religious beliefs, disability status, diagnosis, LGBT (ie, lesbian, gay, bisexual, transgender) status, and geography. | <ol style="list-style-type: none"> 1. World Health Organization. Social Determinants of Health: Key Concepts. Available at: http://www.who.int/social_determinants/thecommission/finalreport/key_concepts/en/index.html. Accessed May 2013. 2. Report of the National Expert Panel on Social Determinants of Health Equity: Recommendations for Advancing Efforts to Achieve Health Equity. Atlanta, GA. September 2009. Available at: http://www.unnaturalcauses.org/assets/uploads/file/SDOH%20Expert%20Panel%20Report%20final%2009%2025%202009.pdf. Accessed May 2013. |
| Transitions of Care | The movement of a patient from one setting of care (e.g., hospital, ambulatory primary care clinic , ambulatory specialty care clinic, long-term care facility, home health, rehabilitation facility) to another. | <ol style="list-style-type: none"> 1. National Transitions of Care Coalition. Improving Transitions of Care: The Vision of the National Transitions of Care Coalition. Available at: http://www.ntocc.org/Portals/0/PDF/Resources/PolicyPaper.pdf . Accessed June 2013. 2. Centers for Medicare and Medicaid Services. Eligible professional meaningful use menu set measures. Available at: http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/downloads/8_Transition_of_Care_Summary.pdf. Accessed May 2013. |

Appendix I. Self-Awareness Examples

Educational Outcome 4.1 Self-Awareness

Students will be able to examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth.

| Specific Competencies | | Student Examples |
|-----------------------|--|--|
| 4.1.1 | Demonstrate motivation, attention, and interest (e.g. habits of mind) during learning and work-related activities. | <ul style="list-style-type: none"> (a) Approach tasks with a genuine desire to learn. (b) Facilitates learning in others. (c) Demonstrates self-direction in completing tasks after initial instructions are given. (d) Recognizes that learning from one's mistakes is a necessary part of the learning process. (e) Demonstrates curiosity to explore higher level learning. |
| 4.1.2 | Identify, create, implement, evaluate and modify plans for personal and professional development for the purpose of individual growth. | <ul style="list-style-type: none"> (a) Engages in the practice of reflection for personal and professional improvement. (b) Demonstrates awareness of own limitations & need for improvement. (c) Sets goals for Continuing Professional Development (CPD) and initiates self-improvement/educational activities. (d) Seeks opportunities to stimulate professional growth and learning. (e) Takes the initiative to gain an understanding of up-to-date information on new developments and best practices through evidence based medicine. |
| 4.1.3 | Demonstrate constructive coping strategies to manage stress and conflict. | <ul style="list-style-type: none"> (a) Manages time wisely. (b) Balances educational, personal and professional activities. (c) Demonstrates appropriate conduct amidst adverse circumstances (e.g., maintains personal control, avoids passive-aggressive behavior & inappropriate non-verbal body language). (d) Recognizes that stressful situations are resolved by breaking the situation down into smaller, more manageable components. (e) Anticipates obstacles and thinks ahead about next steps. (f) Recognizes that practice and experience will alleviate anxiety in stressful situations. |
| 4.1.4 | Demonstrate flexibility and maturity in adjusting to change with the capacity to alter one's behavior. | <ul style="list-style-type: none"> (a) Adapts to changes caused by varying circumstances. (b) Prioritizes and re-prioritizes activities in response to change, challenges, or demands. (c) Seeks, accepts, and applies constructive feedback for improvement. (d) Demonstrates ability to modify strategies as needed to achieve desired outcomes. (e) Recognizes when to ask for help and seeks assistance |

Appendix I. Self-Awareness Examples (cont.)

| Specific Competencies | | Student Examples |
|------------------------------|---|---|
| 4.1.5 | Recognize ambiguity is part of healthcare and respond by utilizing appropriate resources in dealing with uncertainty. | <ul style="list-style-type: none"> (a) Rapidly identifies, acquires collects, and weighs the importance of available information to solve problems. (b) Makes decisions based upon analysis of existing information and applied knowledge. (c) Rapidly acquires new information and applies knowledge to analyze issues. (d) Values input and expertise from others. (e) Demonstrates the ability to customize and adapt evidence based guidelines to the individual patient in question. (f) Recognizes there may be multiple reasonable solutions to patient care problems based upon evidence based medicine, experience, and intuition. |
| 4.1.6 | Demonstrate self-confidence when working with patients, families, and members of the healthcare team. | <ul style="list-style-type: none"> (a) Maintains eye contact while speaking and listening to patient. (b) Demonstrates active listening skills when interacting with members of the healthcare team. (c) Contributes information and knowledge in a self-assured, yet courteous manner. (d) Displays a willingness and ability to efficiently communicate knowledge based on academic level. (e) Displays an ability to discuss personal shortcomings or failures without losing faith in his/her own competence. |

Appendix II. Professionalism Examples

Educational Outcome 4.4 Professionalism

Students will exhibit behaviors and values consistent with the trust given to the profession by patients, other healthcare providers, and society.

| Specific Competencies | | Examples of Student Behaviors |
|-----------------------|---|---|
| 4.4.1 | Demonstrate empathy, compassion, integrity, and respect for others. | <ul style="list-style-type: none"> (a) Demonstrates awareness of and sensitivity to needs of colleagues, staff, and faculty. (b) Demonstrates sensitivity to others based on differences in age, gender, culture, race, socioeconomic level, religious beliefs, sexual orientation, etc. (c) Tactfully questions policies, procedures, and practices. (d) Answers questions truthfully and tactfully. (e) Respects physical property and environment. (f) Demonstrates a considerate attitude towards faculty & fellow students in class (e.g., arrives on time, does not disrupt class, does not use electronic devices inappropriately, etc.) and co-curricular activities. (g) Refers to other disciplines and professions in a positive manner and treats them with dignity. (h) Appropriately addresses patients, colleagues, team members, faculty, and staff. (i) Relates and responds to patients in a caring and compassionate manner. (j) Recognizes, accepts, and patiently endures inconveniences to meet the needs of patients. (k) Maintains an open, approachable manner. (l) Demonstrates honesty in academic endeavors and interactions with others. |
| 4.4.2. | Demonstrate preparation, initiative, and accountability consistent with a commitment to excellence. | <ul style="list-style-type: none"> (a) Strives for accuracy and precision by displaying a willingness to recognize, correct, and learn from errors. (CAPE 4.1.6) (b) Seeks, accepts, and applies constructive feedback and criticism & then modifies behavior accordingly. (c) Accountable for deadlines; completes assignments and tasks on time. (d) Reads & responds to emails, correspondence, & communication within 72 hours or less. (e) Comes to class prepared for discussion and/or with homework completed. (f) Comes to rotations prepared for patient care experiences, and reviews information as needed. (g) Takes responsibility for actions and performance of self and those who report to you. (h) Provides constructive feedback to colleagues with intention to help and educate. (i) Takes responsibility for appropriate share of team work. (j) Provides colleagues and team members with information that is accurate, timely, and organized. |

Appendix II. Professionalism Examples (cont.)

| Specific Competencies | | Examples of Student Behaviors |
|------------------------------|--|--|
| 4.4.3 | Demonstrate a commitment to legal and ethical principles pertaining to provision of patient centered care, including compliance with relevant laws, policies, and regulations. | <ul style="list-style-type: none"> (a) Protects patient identity and confidential information. (b) Develops appropriate relationship with patients and other members of the healthcare team for optimal care while maintaining professional boundaries. (c) Adheres to practice standards as identified by state & federal law. (d) Adheres to institution specific policy & procedures. (e) Adheres to the Student Academic & Conduct Standards Policy 3.01. |
| 4.4.4 | Demonstrate mindfulness of the environment, recognizing that one's professionalism is constantly evaluated by others. | <ul style="list-style-type: none"> (a) Presents self in a professional manner (e.g., demeanor, dress, hygiene). (b) Utilizes caution & prudence when disclosing personal or private information in a public forum, including social media. (c) Intervenes when others are demonstrating behaviors counter to the principles of professionalism. (d) Accepts constructive feedback & criticism relative to professional behavior and modifies behavior accordingly. |
| 4.4.5 | Actively participate in the profession and broader community. | <ul style="list-style-type: none"> (a) Actively participates and engages in school organizations &/or other worthwhile endeavors in the pharmacy profession. (b) Serves society by using expertise to solve problems (PAT) (c) Recognizes & acts on his/her responsibilities to society; locally, nationally, and globally (Acad Med 2013). (d) Advocates for underserved populations and those who can't advocate for themselves. |

PHARMACY COURSE DESCRIPTIONS (INCLUDES PRE-REQUISITES)

College of Health Professions (CHP)

400 Interprofessional Health Care Practice. 3 credits.

This course is designed for pharmacy, nursing, allied sciences, and other allied health students focusing on the necessary knowledge, skills, and attitudes to function as an effective member of the health care team. Pre-req: PHRM 455 for Pharmacy students and NURS 340 and NURS 341 for Nursing students. Cross-listed with HNES.

450 Complementary and Alternative Therapies. 2 credits.

An Evidence-Based Approach This course is designed to provide health professions students with an overview of all forms of complementary and alternative medicine (CAM) commonly practiced in the United States. Students will develop knowledge, skills, and practical tools necessary to understand and evaluate CAM, and provide recommendations for appropriate use to patients or other health care professionals. Prereq: NURS 210 with a grade of C or better or PHRM 480 with a grade of C or better.

460 Scientific Writing for Health Professionals. 2 credits.

Students will develop skills and engage with concepts that will help them communicate with scientific, patient, and public audiences. This course is designed to be useful for students in any department in the College of Health Professions but is especially recommended for pharmacy students interested in pursuing a residency. Prereq: PHRM 480 with a grade of C or higher. {Also available for graduate credit - see CHP 660.}

Pharmaceutical Sciences (PSCI)

300 Pharmaceutical Organic Chemistry. 5 credits.

This course provides pre-professional pharmacy students enrolled in the Doctor of Pharmacy Early Admissions Pathway with a comprehensive overview of organic chemistry and related topics relevant to the professional pharmacy curriculum such as structure-activity relationships, drug design, and common pharmaceutical polymers. Prereq: CHEM 121, CHEM 121L, CHEM 122, CHEM 122L. Restricted to students who have conditional acceptance in the NDSU Doctor of Pharmacy program.

301 Biochemistry and Molecular Biology for Pharmacists. 5 credits.

The primary goal in this course is to ensure that students begin to understand how biological processes occur at the molecular level. Students will also study the structure and function of the molecules of living cells, with an emphasis on proteins in the context of antibiotic and other drug interactions. The course will include an introduction to biomolecules, an examination of the generation and use of metabolic energy, biosynthesis, metabolic regulation, and an introduction to the storage, transmission, and expression of genetic information. Prereq: CHEM 342 or PSCI 300. Restricted to students who have conditional acceptance in the NDSU Doctor of Pharmacy program.

367 Pharmaceutical Calculations. 1 credit.

Qualitative and quantitative principles encompassing calculations performed by pharmacists in traditional and specialized practice settings. Scope includes computations related to prescriptions and medication orders. Restricted to students in the professional Pharmacy program.

368 Pharmaceutics I. 3 credits.

Quantitative and theoretical principles of science applied to the design, preparation, evaluation, use, and therapeutic limitations of various pharmaceutical dosage forms. Biological and physiochemical principles that govern the absorption, distribution, metabolism, and excretion of drug dosage forms in humans. Prereq: Admission to professional program.

369 Pharmaceutics II. 2 credits.

Quantitative and theoretical principles of science applied to the design, preparation, evaluation, use, and therapeutic limitations of various pharmaceutical dosage forms. Biological and physiochemical principles that govern the absorption of drug dosage forms. Prereq: Admission to professional program.

410/610 Pharmaceutical Biotechnology. 2 credits.

Current and future biotechnologies in drug discovery, design, and production. Diagnostic technologies for individualized patient therapies. Prereq: admission to PharmD program.

411/611 Principles of Pharmacokinetics and Pharmacodynamics. 3 credits.

Basic chemical, biochemical and pharmacological principles applied to the study of therapeutic agents; pharmacologic properties of drugs that affect their ADME and therapeutic effects. Prereq: BIOC 460, BIOC 461, CHEM 341, CHEM 342.

412/612 Chemotherapeutic/Infectious Disease Pharmacodynamics. 3 credits.

Pharmacologic and therapeutic properties of chemotherapeutic agents and anti-infective drugs. Prereq: PSCI 411.

413/613 Endocrine/Respiratory/GI Pharmacodynamics. 3 credits.

The pharmacological properties and therapeutic uses of therapeutic agents for the treatment of disorders of the endocrine and GI systems, autonomic nervous system, and anti-inflammation agents, will be covered in this course. Prereq: PHRM 340, PHRM 341, PSCI 411; all with a grade of C or higher.

414/614 Cardiovascular Pharmacodynamics. 3 credits.

Pharmacologic properties of drugs used in the treatment of cardiovascular disorders. Prereq: PHRM 340 and PSCI 411 both with a grade of C or higher.

415/615 Neuropsychiatry Pharmacodynamics. 3 credits.

Pharmacological properties of therapeutic agents used in the treatment of central nervous system disorders. Prereq: PHRM 341 and PSCI 411; both with a grade of C or higher.

417/617 Pharmacogenomics. 2 credits.

This course provides students with a broad perspective on the emergence of pharmacogenomics as a new field and the potential role of pharmacogenomics in future clinical therapeutics and drug design. Prereq: Admission to PharmD/graduate PSCI program.

470/670 Pharmacokinetics. 3 credits

Concepts and mathematical techniques for describing the time course of drugs in biological systems. Prereq: PSCI 411 with a grade of C or higher.

545 Clinical Toxicology. 2 credits

Toxic potential of various poisonous substances including mechanism of toxicity, toxic doses, clinical presentation, clinical and laboratory monitoring and their specific treatment. Pre-req: PSCI 411

PHARMACY PRACTICE (PHRM)**301 Top Drugs I. 1 Credit.**

Introduction to basic knowledge necessary for success in the professional pharmacy curriculum and in the practice of pharmacy. Student will learn brand/generic/indication for all medications on the Top Drug Medication List. Prereq: acceptance into the PharmD program.

324 Writing and Professionalization in Pharmacy. 3 Credits.

Study of and practice in language use and written conventions of pharmacy practice and the pharmaceutical sciences. Students practice writing for career development, documenting patient care, evaluating and synthesizing scientific literature, and communicating with patient and professional audiences. Prereq: ENGL 120, junior status, admission to the early admission pathway to the Doctor of Pharmacy program.

340 Patient Assessment and Pathophysiology I. 4 credits.

Introduction to interviewing skills and physical assessment techniques important for assessing patients and monitoring disease states and drug therapy. Comprehensive study of the normal and abnormal physiological processes and the mechanisms of disease important to the understanding of pharmacology and drug therapy. Prereq: Admission to the professional program.

341 Pathophysiology II. 3 credits.

Normal and abnormal physiological processes and the mechanisms important to the understanding of pharmacology and drug therapy. Pre-req: admission to Pharm.D. program.

351L Pharmacy Practice Lab I. 2 credits.

Through hands on application, students will develop competence in pharmaceutical care, pharmacy calculations, prescription dispensing and consultation, and compounding nonsterile and sterile products. Pre-req: admission to Pharm.D. program.

353 Introduction to Pharmacy and the Health Care System. 3 Credits.

Introduction to the knowledge, skills and attitudes necessary for success in the professional pharmacy curriculum and in the practice of pharmacy. Pharmacy students will be introduced to health professions, health care delivery systems, financing, access, quality, and economic issues. Prereq: admission to the PharmD program.

355 Institutional Introductory Pharmacy Practice Experience. 3 credits.

This course is designed to be an introduction to institution based pharmacy practice. This course consists of a 3 week, 120 hour, unpaid, supervised pharmacy practice experience in an institutional pharmacy setting, required assignments, and required reflection. Pass/Fail grading. Prereq: PHRM 400, PHRM 450, PHRM 452L, PHRM 455, PHRM 532, PHRM 534, PHRM 535, PHRM 538, PHRM 565, PSCI 413, PSCI 414, PSCI 415, PSCI 417 and CHP 400; all with a grade of C or higher.

400 Top Drugs II. 1 credit.

Introduction to basic knowledge necessary for success in the professional pharmacy curriculum and in the practice of pharmacy. Prereq: PHRM 301 with a grade of C or higher.

425/625 Instructional Design for Health Professionals. 2 credits.

Build basic skills to design and implement effective instructional activities ranging from pharmacy-specific professional education (e.g. patient education, inter-professional medication-related presentations) to college-level instructional tasks. Prereq: PHRM 355 with a grade of C or higher.

450 Self Care. 3 credits.

Course designed to provide pharmacy students with the knowledge, skills, and practical tools necessary to provide self care recommendations to patients, physicians, nurses, and other allied health care professionals. Prereq: PHRM 340, PHRM 341; both with a grade of C or higher.

452L Pharmacy Practice Laboratory II. 2 credits.

Through hands on application, students will develop competence in pharmaceutical care, pharmacy calculations, prescription dispensing and consultation, compounding nonsterile and sterile products, long term care, and self-care. Prereq: PHRM 351L with a grade of C or higher.

455 Community Introductory Pharmacy Practice Experience. 4 credits.

This course is designed to be an introduction to community based pharmacy practice. This course consists of a 4 week, 160 hour, unpaid, supervised pharmacy practice experience in a community pharmacy setting, required assignments, and required reflection. Pass/Fail grading. Prereq: PHRM 301, PHRM 340, PHRM 341, PHRM 351L, PHRM 353, PHRM 480, PSCI 367, PSCI 368, PSCI 369, PSCI 410, PSCI 411, PSCI 412, PSCI 470 and MICR 470; all with a grade of C or higher.

480 Drug Literature Evaluation. 3 credits.

The goals of this course are to achieve a thorough understanding of the structure of the literature and its inherent strengths and weaknesses, such that the student may evaluate scientific studies and utilize the literature to support a point of view. Prereq: Admission to professional program.

500 Top Drugs III. 1 credit.

Students will build on drug knowledge they have obtained from PHRM 400 to be successful in the practice of pharmacy. Prereq: PHRM 400 with a grade of C or higher.

520/620 Special Populations. 3 credits.

Focused on providing pharmaceutical care for a variety of populations including men, women, pediatric and geriatric patients. Prereq: PHRM 532, PHRM 537 and PHRM 538, all with a grade of C or higher.

532 Infectious Disease. 3 credits.

This course is a clinical, patient-oriented approach to infectious disease. The instructors will review antimicrobial agents combined with specific infectious disease processes and therapies to help the students make appropriate judgments on infectious disease problems. Prereq: MICR 470, PSCI 412; both with a grade of C or higher.

534 Rheumatology/Endocrinology/Gastrointestinal. 3 credits.

Pharmacotherapy of disorders involving the musculoskeletal, endocrine, and gastrointestinal systems. Prereq: PSCI 413 with a grade of C or higher.

535 Hematology and Oncology. 3 credits.

This course provides a framework for understanding the role molecular biology plays in the pathophysiology and treatment of the most prevalent oncologic and hematologic malignancies, as well as benign and drug-induced hematologic conditions. Students will apply evidence-based principles in assessing/monitoring appropriate therapy for these patients. Prereq: PSCI 410, PSCI 412 both with a grade of C or higher.

536/636 Neurology & Psychiatry Pharmacotherapy. 3 credits.

The course will focus on the principles, selection and management of pharmacotherapy for the major psychiatric and neurologic diseases. Learning methods will include face-to-face lecture, in-class discussion, small group activities, and case formulations. Prereq: PSCI 415 with a grade of C or higher.

537/637 Renal Disease/Fluid & Electrolytes. 2 credits.

This course focuses on pathophysiology and pharmacotherapy of major renal diseases including fluid and electrolyte disorders, acid/base balance, and renal replacement therapy. Emphasis is placed upon application of knowledge to patient care situations and the mastery of pharmacotherapy. Prereq: PSCI 414 with a grade of C or higher.

538 Cardiovascular and Pulmonary Diseases. 4 credits.

Pharmacotherapy of cardiovascular and pulmonary diseases. Study of the pathophysiology, clinical presentation, and treatment of various cardiovascular and pulmonary diseases. Prereq: PSCI 413 and PSCI 414; both with a grade of C or higher.

540 Public Health for Pharmacists. 3 credits.

Pharmacy students will be introduced to public health services, health disparities, emergency preparedness, epidemiology, behavioral health, health promotion, and global health. Prereq: PHRM 352 with a grade of C or higher.

545L Pharmacotherapy Laboratory. 1 credit.

This is a problem-based and skills-based laboratory integrating the pathophysiology, pharmacology, and therapeutic aspects of various diseases in order to prepare learners to make sound therapeutic decisions and provide clinical rationale during the pharmacist's patient care process. The class activities are designed as a team-based approach. Prereq: PHRM 450, PHRM 532, PHRM 534, PHRM 538 all with a grade of C or higher. Co-req: PHRM 536, PHRM 537.

546 Advanced Topics in Neuropsychiatry: Major Neurocognitive Disorders

The course will provide the most up-to-date information regarding advanced care and management of patients with select major neurocognitive disorders, previously known as dementia. In addition, reversible causes of cognitive problems will be discussed. Prereq: PHRM 341 and PHRM 536.

551L Pharmacy Practice Laboratory III. 2 credits.

This course focuses on pharmaceutical care, pharmacy calculations, prescription consultation, compounding nonsterile and sterile products, and disease state management. Prereq: PHRM 452L with a grade of C or higher.

552L Pharmacy Practice Laboratory IV. 2 credits.

Coursework will assist Doctor of Pharmacy candidates to develop competence in recognizing, analyzing, and resolving drug related problems; providing accurate drug information and education; promoting public health and managing a patient oriented pharmacy practice. Prereq: PHRM 551L and PHRM 545L; both with a grade of C or higher.

553 Pharmacy-Based Point-of-Care Testing Certificate Program. 1 credit.

To provide students with the knowledge of assessment, testing, follow-up care and management principles necessary to operate a successful point-of-care testing program in community pharmacies. Successful completion of the course will result in a National Association of Chain Drug Stores Point of Care Testing Certificate. This course is a combination of live lectures and home study material. Prereq: PHRM 551L and PHRM 532; both with a grade of C or higher.

560 Specialty Care Topics. 2 credits

This course will provide knowledge of specialty topics encountered in pharmacy practice. Prereq: PHRM 537, PHRM 538; both with a grade of C or higher.

565 Pharmacy-Based Immunization Delivery. 1 credit.

This course will provide knowledge of immunology, vaccine-preventable diseases, indications for vaccination, and implementation and maintenance of a pharmacy-based vaccination program. Prereq: MICR 470 with a grade of C or higher.

570 Pharmacy Practice Improvement and Project Management. 2 credits.

Students will gain a basic understanding of performance improvement and projects they may be expected to complete on a rotation or as a new practitioner. Prereq: PHRM 353 (or PHRM 350 and PHRM 352) and PHRM 480; all with a Grade of C or higher.

572 Pharmacy Law and Ethics. 3 credits.

Pharmaceutical jurisprudence, including state and federal laws and ethical issues concerned with the practice of pharmacy. Prereq: PHRM 350, PHRM 352, PHRM 452L all with a grade of C or higher.

575 Pharmacy Management. 3 credits.

Case studies of retail and hospital pharmacy management concerns, as well as the unique consideration of retail pharmacy and institutional factors of hospital pharmacy management. Pre-req: PHRM 350, 352, 452L; all with a grade of C or higher.

576 Essentials for Pharmacist Licensure I. 1 credit.

Part 1 of a comprehensive self-directed plan designed to integrate, apply, reinforce, and advance the knowledge, skills, attitudes, and values developed through the other components of the curriculum in preparation for national pharmacist licensing examinations. Registration by permit only. Prereq: PHRM 500, PHRM 520, PHRM 540, PHRM 545L, PHRM 552L, PHRM 560, PHRM 570, PHRM 572, PHRM 575, PHRM 580; all with a grade C or higher.

577 Essentials for Pharmacist Licensure II. 2 credits.

Part 2 of a comprehensive self-directed plan designed to integrate, apply, reinforce, and advance the knowledge, skills, attitudes, and values developed through the other components of the curriculum in preparation for national pharmacist licensing examinations. Enrollment is by permission only. Prereq: PHRM 576.

578 Essentials for Pharmacist Licensure III. 2 credits.

Part 3 of a comprehensive self-directed plan designed to integrate, apply, reinforce, and advance the knowledge, skills, attitudes, and values developed through the other components of the curriculum in preparation for national pharmacist licensing examinations. Prereq: PHRM 577.

580 Pharmacotherapy Capstone. 3 credits.

Students will evaluate integrated patient case scenarios using clinical practice guidelines, current scientific literature, and pharmacotherapy concepts. Pre-req: PHRM 532, 534, 535, 536, 537, 538; all with a grade C or higher.

581-589 Advanced Pharmacy Practice Experience – Rotations 1-9. 5 Credits each rotation. (Students will complete 8 of these rotations for a total of 40 credits.)

Experiential clinical training designed to integrate, apply, reinforce, and advance the knowledge, skills, attitudes and values developed through the other components of the curriculum. Enrollment by departmental permission only.

PROFESSIONAL CURRICULUM 2021/2022

In addition to curriculum listed below, 6 credits of Professional Electives **MUST** be completed **PRIOR** to P4 Year.

| P1 (40 credits) | | | |
|--|-----------|--|-----------|
| FALL 2021 | Cr | SPRING 2022 | Cr |
| MICR 470, Basic Immunology | 3 | PSCI 369, Pharmaceutics II | 2 |
| PSCI 367, Pharmaceutical Calculations | 1 | PSCI 410/610, Pharmaceutical Biotechnology | 2 |
| PSCI 368, Pharmaceutics I | 3 | PSCI 412, Oncology/ID Dynamics (PSCI 411) | 3 |
| PSCI 411, Principles of Kinetics and Dynamics | 3 | PSCI 470, Pharmacokinetics (PSCI 411) | 3 |
| PHRM 301, Top Drugs I | 1 | PHRM 341, Pathophysiology II | 3 |
| PHRM 340, Patient Assessment and Pathophysiology I | 4 | PHRM 351L, Pharmacy Practice Lab I | 2 |
| PHRM 353, Intro to Pharmacy and Health Care System | 3 | PHRM 480, Drug Literature Evaluation | 3 |
| TOTAL | 18 | TOTAL | 18 |
| SUMMER - PHRM 455, Community Introductory Pharmacy Practice Experience, 160 hours = 4 cr. * (PHRM 301, PHRM 340, PHRM 341, PHRM 351L, PHRM 353, PHRM 480, PSCI 367, PSCI 368, PSCI 369, PSCI 410, PSCI 411, PSCI 412, PSCI 470 and MICR 470) | | | |

| P2 (37 credits) | | | |
|---|-----------|--|-----------|
| FALL 2022 | Cr | SPRING 2023 | Cr |
| PSCI 413, Endocrine/Pulm/GI Dynamics(PHRM 340, 341, PSCI 411) | 3 | PSCI 415, Neuro-Psych Dynamics(PHRM 341, PSCI 411) | 3 |
| PSCI 414, Cardiovasc Dynamics (PHRM 340, PSCI 411) | 3 | PHRM 450, Self-Care (PHRM 340, PHRM 341) | 3 |
| PSCI 417, Pharmacogenomics | 2 | PHRM 534, Endocrine/Rheum/GI (PSCI 413) | 3 |
| PHRM 400, Top Drugs II (PHRM 301) | 1 | PHRM 538, Cardio/Pulm (PSCI 413, PSCI 414) | 4 |
| PHRM 452L, Pharmacy Practice Lab II (PHRM 351L) | 2 | PHRM 565, Immunizations (MICR 470) | 1 |
| PHRM 532/632, Infectious Disease (MICR 470, PSCI 412) | 3 | CHP 400, Interprof Health Care Practice (PHRM 455) | 3 |
| PHRM 535, Hematology/Oncology (PSCI 410, PSCI 412) | 3 | | |
| TOTAL | 17 | TOTAL | 17 |
| SUMMER – PHRM 355, Institutional Introductory Pharmacy Practice Experience, 120 hours=3 cr. * (PHRM 400, PHRM 450, PHRM 452L, PHRM 455, PHRM 532, PHRM 534, PHRM 535, PHRM 538, PHRM 565, PSCI 413, PSCI 414, PSCI 415, PSCI 417 and CHP 400) | | | |

| P3 (30 credits) | | | |
|--|-----------|--|-----------|
| FALL 2023 | Cr | SPRING 2024 | Cr |
| PHRM 500, Top Drugs III (PHRM 400) | 1 | PHRM 520, Special Populations (PHRM 532, 537, 538) | 3 |
| PHRM 536, Neuro-Psych (PSCI 415) | 3 | PHRM 552L, Pharmacy Practice Lab IV (PHRM 551L, 545L) | 2 |
| PHRM 537, Renal/Fluid & Electrolytes (PSCI 414) | 2 | PHRM 560, Specialty Care Topics (PHRM 537, 538) | 2 |
| PHRM 540, Public Health (PHRM 353) | 3 | PHRM 570, Practice Improvement & Proj. Mgmt (PHRM 353, 480) | 2 |
| PHRM 551L, Pharmacy Practice Lab III (PHRM 452L) | 2 | PHRM 572, Pharmacy Law & Ethics (PHRM 353, 452L) | 3 |
| PHRM 545L Pharmacotherapy Lab (PHRM 450, 532, 534, 538, Co-req PHRM 536 & 537) | 1 | PHRM 580, Pharmacotherapy Capstone (PHRM 532, 534, 535, 536, 537, 538) | 3 |
| PHRM 575, Pharmacy Management (PHRM 353, 452L) | 3 | | |
| TOTAL | 15 | TOTAL | 15 |

P-4 (45 Credits) 2024 - 2025

PHRM 576-578 Essentials for Pharmacist Licensure I-III (5 Credits)

PHRM 581-589 Advanced Pharmacy Practice Experience (APPE)* 40 weeks (40 Credits)

* Students will be assigned away from Fargo/Moorhead for all or part of IPPE/APPE experiences

EXPERIENTIAL EDUCATION PLACEMENT

Students in the pharmacy program will be assigned for experiences away from the Fargo-Moorhead community for extended periods of time for their experiential coursework (Introductory Pharmacy Practice Experience and Advanced Pharmacy Practice Experience). Students are expected to make sufficient financial and other preparations in advance of these experiences to allow them to successfully complete the experiential requirements. Students are responsible for housing, board, travel expenses and all other related expenses during these experiences.

Pharmacy students must register **annually** as a Student Intern with the North Dakota State Board of Pharmacy and must continuously hold valid licensure as a pharmacy intern in North Dakota for the duration of the professional program. Students must pay all ND Board internship fees to be eligible for the experiential education program. Students with experiential placement in states outside of North Dakota must also register and pay for an intern license in those states.

INTRODUCTORY AND ADVANCED PHARMACY PRACTICE EXPERIENTIAL EDUCATION

Introductory Pharmacy Practice Experience (IPPE) consists of a total of 300 hours throughout the P1 – P2 – P3 years. First year professional students will complete 120 hours of IPPE in an institutional pharmacy setting during the summer between their P1 and P2 year. Second year professional students will complete 160 hours of IPPE in a community pharmacy setting during the summer between their P2 and P3 year. The remaining required 20 hours consists of actual and simulated patient care experiences dispersed throughout the P1, P2, and P3 curriculum.

Advanced Pharmacy Practice Experience (APPE) is comprised of 8 five-week rotations during the fourth professional year. Five of the eight rotations are required rotations including; ambulatory care, acute care, institutional, community advanced, and rural health. The remaining three rotations are considered elective rotations and are chosen based on student personal and professional preferences.

PHARMACY REGULATIONS FOR EXPERIENTIAL EDUCATION

North Dakota

A student enrolled in the entry-level Pharm.D. program is required to register as a PHARMACY INTERN per North Dakota Administrative Code prior to the fall term of the first professional year. Registration is conducted at a time specified by the Board of Pharmacy in cooperation with the College of Health Professions. Students enrolled in the professional pharmacy curriculum are assessed \$100 per year by the Board of Pharmacy for a maximum of four years. Pharmacy students must register annually as a Student Intern with the North Dakota State Board of Pharmacy and must continuously hold valid licensure as a pharmacy intern in North Dakota for the duration of the professional program.

The Pharm.D. degree provides a student 1600 hours of Advanced Pharmacy Practice Experience (APPE) toward North Dakota licensure. Experiential requirements within this program grant a student eligibility for North Dakota licensure examinations as a pharmacist immediately upon graduation. Although all eligibility requirements for North Dakota licensure are satisfied through hours received from the experiential program, students are encouraged to seek additional hours of internship experience by working during their free summer periods to enhance their learning throughout the professional program.

The North Dakota Pharmacy Practice Act allows a student to register as an intern with the Board of Pharmacy prior to beginning Pharm.D. coursework as long as the student has completed a year of college and is registered in the pre-pharmacy program. For more information concerning this and other internship program details, contact the Board Office as listed below.

Mark Hardy, Pharm.D., Executive Director
North Dakota Board of Pharmacy, 1906 East Broadway Ave, Bismarck ND 58501 Phone:
(701) 328-9535; Fax: (701) 328-9536; Web Address: www.nodakpharmacy.com

Minnesota

The following is a synopsis of the Minnesota Board of Pharmacy internship regulations. Emphasis is placed on pertinent differences that exist between North Dakota and Minnesota regulations. Questions regarding points not covered in this section should be directed to the executive director of the Minnesota Board of Pharmacy whose name, address and phone number is listed below.

Application for registration as a PHARMACY INTERN in Minnesota is available only as on-line application at their web site: <http://mn.gov/boards/pharmacy> .

1. Students are eligible to register as a Minnesota pharmacy intern after successful completion of the first professional year of the pharmacy curriculum.
2. Students interning 240 hours of internship or more in the state of Minnesota are required to complete the Internship Competency Manual, available online at the Minnesota Board of Pharmacy website.
3. It is imperative that students register with and are issued an intern license through the Minnesota Board prior to beginning IPPE/internship experience (within the boundaries of the state of Minnesota), or credit will **not** be given for time accrued.

*Cody Wiberg, Pharm.D., Executive Director
Minnesota State Board of Pharmacy
2829 SE University Ave., Suite 530
Minneapolis MN 55414-3251
Phone: (651) 201-2825
Fax: (612) 617-2262
Web address: <http://mn.gov/boards/pharmacy>*

POST GRADUATE RESIDENCY FAQs

What is a Pharmacy Residency?

A pharmacy residency is an organized, mentored, post-graduate training program. Typically, a residency is completed directly after graduating from a Doctor of Pharmacy program. However, some may choose to complete residency after practicing as a licensed pharmacist for a few years.

What will I learn in a residency program?

You will learn the knowledge and gain the experience required of pharmacists in various areas of practice. You will have the opportunity to learn from pharmacists who are experts in their area of pharmacy.

Why should I do a residency?

This is an opportunity to bridge the gap between being a pharmacy student one day, and the next day being a licensed pharmacist. You will have the opportunity to fortify your strengths, strengthen your weaknesses, and develop confidence in your abilities as an individual pharmacist. Other benefits include a competitive advantage in the job market, networking opportunities, career planning, and attendance/participation at local and national meetings.

What is the duration of residency program?

Each residency is typically one year. They start July 1 and conclude June 30 each year. Some residencies are offered in combination with a postgraduate degree (M.S., MBA), and may take additional years to complete.

Are all residency programs the same?

No. The type of residency you select will depend on your career objectives. Select a program that will prepare you for the type of job you eventually want to have. Examples of current residency types include:

- PGY-1 (“Pharmacy Practice” or “General”)
- Pediatrics
- Psychiatry
- Ambulatory Care
- Infectious Diseases
- Oncology
- Pharmacy Management
- Managed Care
- Critical Care

Are residencies only for hospital-based programs?

No. There are many ambulatory based programs. In fact, these programs are among the fastest growing type.

Do I get paid during this program?

Yes. Most residencies pay roughly \$40,000-\$45,000 for the year. Some programs allow the opportunity to pick-up extra pharmacist shifts to earn extra pay. Most programs offer fringe benefits (e.g. health care, investment opportunities, etc.). Also, you may be eligible for deferring payment on your student loans during the program.

I’m not sure what type of program is right for me. What do you suggest?

The most common type of residency is a PGY-1 (“Pharmacy Practice” or “General”) residency. It covers a broad spectrum of practice areas and patient types. Required experiences include acute care, ambulatory care, drug information, and practice management. In addition to these “core” elements, each program has various specialty areas to complete the training experience. Also, a research project (in collaboration with one of your preceptors) is completed during the residency year. Some programs include teaching/precepting opportunities in cooperation with an affiliated college of pharmacy. Finally, programs have various service (“staffing”) requirements. Typically, staffing requires functioning as a pharmacist during evening and/or weekend hours.

How do I apply for a residency program?

PGY-1 and PGY-2 residencies (ASHP-accredited) require participation in the residency-matching program. This is a formal process that attempts to match applicants to their choice of programs and vice versa. Programs that are in the process of receiving accreditation may also participate in the residency-matching program. Check with the individual programs to verify their accreditation, and match participation status.

To participate in the Match for a position designated as a PGY-2 residency, an applicant must have already completed a PGY-1 residency, or currently be in training in a PGY-1 residency program that will be completed before the start of the PGY-2 residency.

Current PGY-1 residents who are interested in continuing their training in a PGY-2 residency offered by the same sponsor as the applicant's PGY-1 residency (e.g., the same or an affiliated organization) may be able to obtain the position through an Early Commitment Process. Applicants who are committed to a position in this manner do not need to register for or participate in the Match.

After I complete this residency experience, what is next?

You will have an advantage over many of your peers regarding employment opportunities. More “doors” will be open to you, and you will have more freedom in your career choice. Many employers value residency-trained pharmacists, and some jobs require residency experience. Graduates of residency programs go on to the following: pharmacist positions (staff, specialist, manager, etc.) in their area of training, faculty positions, specialty residency programs, or fellowship programs.

How do I find out more about residency programs and where they are located?

Here are a few good resources: <https://www.ashp.org/Professional-Development/Residency-Information>, your college's ASHP advisor, local pharmacy practice residency directors, and ASHP's Midyear Clinical Meeting, which showcases virtually all of the ASHP-accredited programs.

For additional information, please check the NDSU School of Pharmacy website: www.ndsu.edu/pharmacy

PHARM.D. / MBA OPTION

The Master of Business Administration (MBA) Program at North Dakota State University is a non-thesis, concise, professional program for qualified students with undergraduate or graduate degrees in various fields. The program imparts an effective set of analytical skills in key areas of business - including management, marketing, accounting, finance, and information systems - designed to broaden career options and facilitate promotability. The NDSU MBA takes a generalist approach to business education while providing a wide variety of elective courses enabling students to pursue a particular area of interest. NDSU's MBA Program is accredited by AACSB International - The Association to Advance Collegiate Schools of Business - the highest business program accreditation worldwide.

Additional foundation coursework is required. Because the MBA degree serves students from various disciplines, a set of foundation course requirements is needed to ensure adequate background preparation. Incoming students need approved undergraduate principles courses in each of the following foundation areas: Accounting, Economics, Management, Marketing, Statistics and Finance. Specifically these classes at NDSU are: ACCT 200 or 102, ECON 105, FIN 320, MGMT 320, MRKT 320, STAT 330. Based on previous coursework, some or all of these courses may be waived. Foundation requirements may also be met by completing approved online self-paced course modules. If you are interested in pursuing this option, please contact Paul Brown at 701-231-7681 or Paul.Brown@ndsu.edu. Note: foundation course requirements do not have to be completed prior to MBA program admission.

Students must be admitted to, and in good standing with, the Pharm.D. program and admitted to the MBA program in order to pursue the MBA. MBA application requirements and other details can be viewed at www.ndsu.edu/business/graduate/mba/ and discussed with MBA Coordinator Paul Brown at 701-231-7681 or Paul.Brown@ndsu.edu. Interested students may also see Dr. Friesner, Senior Associate Dean, College of Health Professions, for more information.

The MBA coursework can be completed in one calendar year following completion of the Pharm.D. degree. Alternatively, a student may take MBA courses anytime after gaining admission to the Graduate School and MBA program, with up to 7 years to complete the program. Over half of NDSU MBA students are part-time, taking 1-4 two-credit courses per semester while working full-time in their professions. Once enrolled in the MBA Program, students should expect to pay graduate course fees and graduate school tuition rates for each MBA course being taken. There is also a differential tuition cost for MBA courses, above the base graduate tuition charged by NDSU. Graduate courses do not count towards the undergraduate tuition cap.

PHARM.D./MBA CURRICULUM

The MBA program is a non-thesis professional degree, comprised of eight (2-credit) required courses and seven (two-credit) graduate-level elective courses, for a total of 30 credits.

| FALL | Credits | SPRING | Credits |
|---|----------------|--|----------------|
| * MBA 701 - Strategic Cost Management | 2 | * MBA 702 – Advanced Financial Management | 2 |
| * MBA 703 – Advanced Organizational Behavior | 2 | * MBA 706 – Managing Information Resources | 2 |
| * MBA 704– Supply Chain and Operations Management | 2 | * MBA 707 – Microeconomics for Managers | 2 |
| * MBA 705 – Strategic Marketing Management | 2 | * MBA 708 – Advanced Strategic Management | 2 |
| Three 2- Credit Electives ** | 6 | Four 2-Credit Elective ** | 8 |
| * Indicates required courses ** Refer to the College of Business for list of approved electives. | | | |

REQUIRED COURSES

MBA Core courses are 2 credits each

With the exception of MBA 708, **prerequisites for these courses are:** admission into the MBA program or permission of the MBA program coordinator or MBA program director.

MBA 701 - Strategic Cost Management

This course introduces managerial accounting for decision making and control in profit-directed organizations. It also defines product costing, budgetary control systems, and performance evaluation systems for planning, coordinating, and monitoring the performance of a business. Students will understand how modern organizations use managerial accounting to effectively plan and control operations and make sound business decisions.

MBA 702 - Advanced Financial Management

In-depth coverage of concepts and decision-making tools in financial analysis, cost of capital, capital structure, capital budgeting, and dividend policy through analyzing competitive situations and developing strategic views of key financial dimensions.

MBA 703 - Advanced Organizational Behavior

This course is intended to introduce you to the essentials of the most important organizational behavior concepts and principles through instruction, reading, cases, and experience. The course focuses on practical and useful information and skills which will aid you in managing and working in an organization. The course will use evidence-based research to examine and explore the relationship between individual, team, and organizational characteristics and individual outcomes.

MBA 704 - Supply Chain and Operations Management (2 credits)

Study of analysis and decision-making directed at creating, producing, and bringing goods and services to market under uncertain business conditions. Includes techniques from project management, supply chain management, quality management, inventory management, forecasting, and production planning.

MBA 705 - Strategic Marketing Management (2 credits)

Focus on the conceptual framework, managerial approach and analysis of deploying marketing resources to communicate and deliver value.

MBA 706 - Managing Information Resources (2 credits)

Managerial perspectives on the role of information resources in supporting organizational functions including the strategic use of information systems; use, design, and evaluation of information resources; use of information technologies for managerial decision making, and IT support of different business functions.

MBA 707 - Microeconomics for Managers (2 credits)

This course will provide students with an understanding of microeconomic tools for managerial decision making. Students will learn how to use an understanding of economics to make better value maximization decisions for their company. Course topics will include supply/demand principles, demand elasticity and estimation, production and costs, market structure, strategic interaction, complex pricing problems, and decisions under risk.

MBA 708 - Advanced Strategic Management (2 credits)

This course teaches from the perspective of top management, integrating functional business expertise into analysis of the firm's internal resources and capabilities with analysis of the external environment in which the firm competes, to enable formulation and implementation of company strategy. Prerequisites: MBA 701, MBA 702, MBA 703, MBA 704, MBA 705, MBA 706.

MASTER OF PUBLIC HEALTH PROGRAM

The Mission of the NDSU MPH Program is to develop and empower public health leaders through interprofessional education, practice, and research.

Public health is defined as the practice of helping members of society live healthier, longer lives. More specifically, public health focuses on improving the general health of communities through efforts to monitor the spread of diseases, initiatives (both clinical and policy-oriented) to prevent disease and disability, and by promoting healthy lifestyles through education and community engagement. Public health is both an art and a science. It is practiced by inter-professional teams whose members' training spans a wide array of academic and vocational fields.

Of particular importance to public health in our state is determining how to meet the challenges of change and diversity within rural areas. Rural health solutions are essential to the well-being of North Dakota and to other areas of the nation and the world. North Dakota is an ideal location for rural public health research in addition to the application of practical solutions to health improvement for rural communities. Public health is an interdisciplinary field; it is common for many people to gain competencies and/or training in a related field (medicine, nursing, pharmacy, business, engineering, etc.) and subsequently move into public health as a matter of vocation or occupation. The MPH degree is uniquely designed to accommodate the needs to these individuals. It blends theory and practical knowledge across a wide array of disciplines, and is the "degree of choice" among practitioners in the field.

Either specialization of *Community Health Sciences* or *Epidemiology* are available for the dual degree.

For more information on the NDSU MPH program you can visit www.ndsu.edu/publichealth or contact Dr. Stefanie Meyer, at Stefanie.meyer@ndsu.edu.

PHARMD/MPH DUAL DEGREE OPTION

The MPH degree consists of 42 credits and can be completed in two years as a full-time graduate student. Pharm.D. students are able to complete a Pharm.D./MPH dual degree in as little as one extra year of study. Pharm.D. students who are in good academic standing are eligible to apply for the Pharm.D./MPH program through the graduate school during their P2 year.

Why Public Health?

Practitioners in our region have limited opportunities for advanced, practical public health training that focuses on the unique challenges facing this largely rural area that encompasses North Dakota and other Northern Plains states. There are many underserved populations living in the region that would benefit from expanded public health interventions. For example, the American Indian communities have typically been underserved and significant health disparities between this population and others have resulted. Overall, there is much to be gained from greater collaboration within the Northern Great Plains, and the education of public health professionals is a natural starting point to facilitate that collaboration.

Is the MPH accredited?

The NDSU MPH program is accredited through the Council on Education in Public Health (CEPH), <https://www.ndsu.edu/publichealth/about/accreditation/>

What are the admission requirements for the Pharm.D./MPH dual degree?

You must be enrolled in the Pharm.D. program and in good academic standing. In addition to graduate school requirements the MPH Admissions Committee may invite selected applicants for an interview.

How do I apply to the Pharm.D./MPH dual degree?

You apply online during the spring semester of your P2 year, watch this page for admission information: https://www.ndsu.edu/publichealth/degrees_and_programs/admission/. If you are a P1 student and wish to get started early, apply online at the above website but choose "Non-Degree" in the drop down box during the spring semester of your P1 year. This will allow you to take PHRM 632 for Graduate credit. Up to nine graduate credits can be taken as a non-degree student.

When can I start the MPH program?

Applications are reviewed each year beginning in November through May for a fall semester start. You may also take up to nine graduate credits as a non-degree seeking student with permission of the instructor.

How much does it cost for MPH courses?

Tuition and fees for MPH coursework can be found here:
<https://www.ndsu.edu/onestop/accounts/tuition/graduate/>

Are there scholarships available?

Yes. [Express Scripts Scholars Program](#) offers scholarships for Pharm.D. dual degree students. The program provides four (4) \$10,000 scholarships nationally each year to enrolled dual degree students. The awarded students are given \$2,500 per semester for four consecutive semesters, totaling \$10,000 over two years. For application instructions, please contact: ExpressScriptsScholars@aacp.org.

The College of Health Professions has a limited number of scholarships and awards available for assistance to students. There are some specific scholarships for PharmD/MPH dual degree students. Applications for scholarships and awards are on the college web page, www.ndsu.edu/healthprofessions. Deadlines vary.

When are MPH courses offered?

MPH core courses are generally offered in the evening to accommodate students who work during the fall and spring semester. A few summer course offerings are available and the MPH practicum is often completed during summer. Current students are encouraged to talk with their faculty advisors for the most up-to-date information on course offerings.

Does the MPH program accommodate distance learners?

MPH students can take their courses on campus at NDSU or off-campus through live video broadcasts of classes

Since I will not enroll in Phrm 552L in the P3/Public Health year, do I still need to complete the required online trainings (e.g. HIPAA, HIPAA Security, NDSU Bloodborne Pathogen, Medicare Fraud, Waste & Abuse, Preventing Methamphetamine Abuse, etc.)?

Yes. You will still need to complete the required trainings in the fall of your P3/Public Health year. In addition, you will need to be registered as a Pharmacy Intern in the state of North Dakota.

Can I take courses in more than one area of specialization?

Yes, there is a list of electives in each specialization that are available to all MPH students. You are welcome to take additional credits if you are interested.

MPH PROGRAM REQUIREMENTS – 42 credits total

| Course Name | Credits | |
|--|-------------------|-----------|
| PH 704: Public Health Management and Policy | 3 | |
| PH 706: Essentials in Epidemiology | 3 | |
| PH 712: Public Health Research Methods | 3 | |
| PH 720: Environmental Health for Public Health Professionals | 2 | |
| PH 731: Biostatistics | 3 | |
| PH 741: Social and Behavioral Sciences in Public Health | 3 | |
| PH 745: Community Health Leadership | 3 | |
| | 20 credits | |
| Additional Required Program Components | Course Name | Credits |
| Integrated Learning Experience | PH 789, ILE | 1 |
| Applied Practice Experience/Practicum | PH 794, Practicum | 3 |
| | | 4 credits |

SPECIALIZATIONS – 18 credits each**Community Health Sciences**

The Community Health Sciences specialization of NDSU's Master of Public Health program prepares leaders in public health to use evidence to improve population health at the community level. The Community Health Sciences specialization is appropriate for healthcare professionals, educators, professionals in Extension

education and human and social services. The skills taught in this specialization will prepare students to determine health needs in the community by collecting and analyzing data as well as using data to build programs to effectively improve health at the community level. The specialization explores contemporary health promotion in conjunction with inter-professional health teams and health-care systems for individuals, groups, organizations and communities using a policy, systems and environmental approach.

| Course Name | Credits |
|---|-------------------|
| PH 700: Preventing and Managing Chronic Illness | 3 |
| PH 711: Integrating Primary Care and Public Health | 3 |
| PH 722: Applied Community Health | 3 |
| PH 725: Promoting Health Through Policy, Systems, and Environment | 3 |
| Electives | 6 |
| | 18 credits |

Dual degree students use PHRM 620 and PHRM 632 as their MPH electives.

PHARMD/MPH – COMMUNITY HEALTH SCIENCES DUAL DEGREE CURRICULUM *Pharmacy Curriculum for 2021-2022*

| P1 (40 credits) | | | |
|--|-----------|--|-----------|
| FALL | Cr | SPRING | Cr |
| Micr 470, Basic Immunology | 3 | PSci 369, Pharmaceuticals II | 2 |
| PSci 367, Pharmaceutical Calculations | 1 | PSci 410/610 Pharmaceutical Biotechnology | 2 |
| PSci 368, Pharmaceuticals I | 3 | PSci 412 Chemotherapeutic Agents (Oncology/ID) | 3 |
| PSci 411, Principles of Dynamics | 3 | PSci 470 Pharmacokinetics | 3 |
| PHRM 301, Top Drugs I | 1 | Phrm 341 Pathophysiology II | 3 |
| PHRM 340, Pathophysiology I | 4 | Phrm 351L, Pharmacy Practice Lab I | 2 |
| PHRM 353, Intro Pharm Practice and HC Sys | 3 | Phrm 480, Drug Literature Evaluation | 3 |
| TOTAL | 18 | TOTAL | 18 |
| SUMMER - Introductory Pharmacy Practice Experience (IPPE) – 4 credits * | | | |

| P2 (37 credits) | | | |
|--|-----------|---|-----------|
| FALL | Cr | SPRING | Cr |
| PSci 413, Endocrine/Resp/GI Dynamics | 3 | CHP 400, Interprofessional Health Care Practice | 3 |
| PSci 414, Cardiovascular Dynamics | 3 | PSci 415, Neuro-Psych Dynamics | 3 |
| PSci 417, Pharmacogenomics | 2 | Phrm 450, Self Care | 3 |
| Phrm 400, Top Drugs II | 1 | Phrm 534, Endocrine/Rheum/GI | 3 |
| Phrm 452L, Pharmacy Practice Lab I | 2 | Phrm 538, Cardiovascular / Pulmonary | 4 |
| Phrm 535, Hematology and Oncology | 3 | Phrm 565, Immunizations | 1 |
| Phrm 632, Infectious Disease ^Φ (<i>Elective for MPH</i>) | 3 | | |
| TOTAL | 17 | TOTAL | 17 |
| SUMMER - Introductory Pharmacy Practice Experience (IPPE) - 3 credits * | | | |

| P3 / PUBLIC HEALTH – First Year (31 credits) | | | |
|---|-----------|---|-----------|
| FALL | Cr | SPRING | Cr |
| Phrm 536, Neuro-Psych | 3 | Phrm 570, Practice Improvement & Proj. Mgmt | 2 |
| Phrm 575, Pharmacy Management | 3 | PH 700, Preventing and Managing Chronic Illness (<i>Required for Community Health Sciences Track – offered every other year</i>) | 3 |

| | | | |
|---|-----------|--|-----------|
| PH 704, Public Health Management and Policy | 3 | PH 706, Epidemiology | 3 |
| PH 731, Biostatistics | 3 | PH 720, Environmental Health for PH Professionals | 2 |
| PH 741, Social & Behavioral Sciences in PH | 3 | PH 722, Applied Community Health <i>(Required for Community Health Sciences Track)</i> | 3 |
| | | PH 745, Community Health Leadership | 3 |
| TOTAL | 15 | TOTAL | 16 |

| P3 2020-2021 / PUBLIC HEALTH – Second Year (28 credits) | | | |
|--|-----------|--|-----------|
| FALL | Cr | SPRING | Cr |
| Phrm 500, Top Drugs III | 1 | Phrm 552L, Pharmacy Practice Lab IV | 2 |
| Phrm 537, Renal, Fluid & Electrolytes | 2 | Phrm 560, Specialty Care Topics | 2 |
| Phrm 545L, Pharmacotherapy Lab | 1 | Phrm 572, Pharmacy Law and Ethics | 3 |
| Phrm 551L, Pharmacy Practice Lab III | 2 | Phrm 580, Pharmacotherapy Capstone | 3 |
| PH 711, Integrating Primary Care and Public Health <i>(Required for Community Health Sciences Track)</i> | 3 | Phrm 620, Special Populations ^Φ <i>(Elective for MPH)</i> | 3 |
| PH 712, Research Methods | 3 | | |
| PH 725, Promoting Health through Policy, System, and Environment <i>(Required for Community Health Sciences Track)</i> | 3 | | |
| TOTAL | 15 | TOTAL | 13 |

^Φ Up to 6 credits will count towards the PharmD degree **AND** MPH degree if taken at the 600 level

| |
|--|
| P4 (40 credits) * APPE – Phrm 581-582-583-584-585-586-587-588-589 (you would take eight of the nine) PHRM 576-578 Essentials for Pharmacist Licensure I-III (5 Credits) |
| <u>SUMMER SEMESTER:</u> |
| PH 794 Public Health Practicum, 3 cr. (6 weeks – 240 hours) <i>Counts towards 3 credits APPE if taken P4 year), and</i> PHRM 595, Field Experience, APPE, variable (register for 7 credits) |
| <u>NOTE:</u> If you don't take PH 794 and Phrm 595, then you <u>MUST</u> take 40 credits of APPE |
| PH 789, ILE (must take during final public health semester or a semester after – this is the culminating experience), 1 cr. |

* Students will be assigned away from Fargo/Moorhead for all or part of IPPE/APPE experiences

Epidemiology – 18 credits

Public health professionals face increasing demands to diagnose, prevent, and control existing and emerging infectious diseases. A new MPH in Epidemiology will be offered with a core curriculum that includes courses in disease surveillance and outbreak investigation, epidemiologic methods, and health survey research. The emphasis is on skills development that will prepare you for careers in state and local public health, healthcare delivery systems, academic research projects, or serve as a base for a PhD.

Management of Infectious Diseases:

| Course Name | Credits |
|------------------------------------|-------------------|
| PH 750: Epidemiologic Methods 1 | 2 |
| PH 752: Epidemiologic Methods 2 | 2 |
| PH 753: Public Health Surveillance | 2 |
| PH 754: Survey Research | 10 |
| | 18 credits |

Dual degree students use PHRM 620 and PHRM 632 as their MPH electives.

**PHARM.D./MPH – MANAGEMENT OF INFECTIOUS DISEASES
DUAL DEGREE CURRICULUM
Pharmacy Curriculum for 2021-2022**

| P1 (40 credits) | | | |
|--|-----------|--|-----------|
| FALL | Cr | SPRING | Cr |
| Micr 470, Basic Immunology | 3 | PSci 369, Pharmaceuticals II | 2 |
| PSci 367, Pharmaceutical Calculations | 1 | PSci 410/610 Pharmaceutical Biotechnology | 2 |
| PSci 368, Pharmaceuticals I | 3 | PSci 412 Chemotherapeutic Agents (Oncology/ID) | 3 |
| PSci 411, Principles of Dynamics | 3 | PSci 470 Pharmacokinetics | 3 |
| PHRM 301, Top Drugs I | 1 | Phrm 341 Pathophysiology II | 3 |
| PHRM 340, Pathophysiology I | 4 | Phrm 351L, Pharmacy Practice Lab I | 2 |
| PHRM 353, Intro Pharm Practice and HC Sys | 3 | Phrm 480, Drug Literature Evaluation | 3 |
| TOTAL | 18 | TOTAL | 18 |
| SUMMER - Introductory Pharmacy Practice Experience (IPPE) – 4 credits * | | | |

| P2 (37 credits) | | | |
|--|-----------|---|-----------|
| FALL | Cr | SPRING | Cr |
| PSci 413, Endocrine/Resp/GI Dynamics | 3 | CHP 400, Interprofessional Health Care Practice | 3 |
| PSci 414, Cardiovascular Dynamics | 3 | PSci 415, Neuro-Psych Dynamics | 3 |
| PSci 417, Pharmacogenomics | 2 | Phrm 450, Self Care | 3 |
| Phrm 400, Top Drugs II | 1 | Phrm 534, Endocrine/Rheum/GI | 3 |
| Phrm 452L, Pharmacy Practice Lab I | 2 | Phrm 538, Cardiovascular / Pulmonary | 4 |
| Phrm 535, Hematology and Oncology | 3 | Phrm 565, Immunizations | 1 |
| Phrm 632, Infectious Disease ^Φ (<i>Elective for MPH</i>) | 3 | | |
| TOTAL | 17 | TOTAL | 17 |
| SUMMER - Introductory Pharmacy Practice Experience (IPPE) - 3 credits * | | | |

| P3 2020-2021 / PUBLIC HEALTH – First Year (32 credits) | | | |
|---|-----------|---|-----------|
| FALL | Cr | SPRING | Cr |
| Phrm 536, Neuro-Psych | 3 | Phrm 570, Practice Improvement & Proj. Mgmt | 2 |
| Phrm 575, Pharmacy Management | 3 | PH 720, Environmental Health | 3 |
| PH 704, Public Health Management and Policy | 3 | PH 736, Principles of Infectious Diseases II (<i>Required for Management of Infectious Diseases Track</i>) | 3 |
| PH 731, Biostatistics | 3 | PH 745, Community Health Leadership | 3 |
| Elective or PH 735, Principles of Infectious Diseases I | 3 | PH 706, Epidemiology | 3 |
| PH 753, Public Health Surveillance | 2 | PH 754, Survey Research | 2 |
| TOTAL | 17 | TOTAL | 15 |

| P3 / PUBLIC HEALTH – Second Year (29 credits) | | | |
|--|-----------|-------------------------------------|-----------|
| FALL | Cr | SPRING | Cr |
| Phrm 500, Top Drugs III | 1 | Phrm 552L, Pharmacy Practice Lab IV | 2 |
| Phrm 537, Renal, Fluid & Electrolytes | 2 | Phrm 560, Specialty Care Topics | 2 |
| Phrm 545L, Pharmacotherapy Lab | 1 | Phrm 572, Pharmacy Law and Ethics | 3 |

| | | | |
|---|-----------|---|-----------|
| Phrm 551L, Pharmacy Practice Lab III | 2 | Phrm 580, Pharmacotherapy Capstone | 3 |
| PH 741, Social & Behavioral Sciences in Public Health | 3 | Phrm 620, Special Populations ^Φ (<i>Elective for MPH</i>) | 3 |
| PH 712, Research Methods | 3 | PH 752, Epidemiologic Methods 2 | 2 |
| PH 750, Epidemiologic Methods 1 | 2 | | |
| TOTAL | 14 | TOTAL | 15 |

^Φ Up to 6 credits will count towards the PharmD degree **AND** MPH degree if taken at the 600 level

P4 (40 credits) * APPE – Phrm 581-582-583-584-585-586-587-588-589 (you would take eight of the nine) PHRM 576-578 Essentials for Pharmacist Licensure I-III (5 Credits)

SUMMER SEMESTER:

PH 794 Public Health Practicum, 3 cr. (6 weeks – 240 hours) Counts *towards 3 credits APPE if taken P4 year*), and Phrm 595, Field Experience, APPE, variable (register for 7 credits)

NOTE: If you don't take PH 794 and Phrm 595, then you MUST take 40 credits of APPE

PH 789, ILE (must take during final public health semester or a semester after – this is the culminating experience), 1 cr.

*** Students will be assigned away from Fargo/Moorhead for all or part of IPPE/APPE experiences**

PHARM D/PHD DUAL DEGREE OPTION

Purpose

The entry level curriculum leading to the Pharm.D. degree requires a minimum of six years of study. Up to 76 semester hours are required in the pre-professional curriculum. Admission to the professional program is competitive, based upon successful pre-pharmacy academic performance and available positions in each class. After successful completion of 76 semester hours, interviews, and the Pharmacy College Admission Test (PCAT), students are admitted to a four-year professional program.

The Department of Pharmaceutical Sciences, one of six academic departments of the College of Health Professions, subscribes to the missions of the College and of North Dakota State University in the provision of Teaching, Research, and Service. The Department provides instruction in disciplines applicable to science. The faculty design and conduct research in the natural and biological sciences, as well as mentor graduate and Professional students in advanced concepts of pharmaceutical science and in the process of scientific inquiry.

NDSU offers both the MS and Ph.D. degrees in Pharmaceutical Sciences. The graduate program emphasizes both research and teaching excellence. The doctor of philosophy degree is awarded in recognition of high scholarly achievement as evidenced by a period of successful study, the satisfactory completion of examinations and the development of an acceptable dissertation project covering some significant aspect of a major field of learning and research. After successful completion of a Ph.D. degree program, students have had a high level of success gaining highly desirable employment in academia, industry and governmental agencies.

The dual program (Pharm.D./Ph.D.) is designed to provide an opportunity for outstanding professional students in the Pharmacy Program at North Dakota State University obtain research experience and a Doctor of Philosophy degree in the Department of Pharmaceutical Sciences.

It is proposed that this can be accomplished with an additional three years of study and research placed between the second and the third years of the four-year professional program.

It is believed that the combination of the Pharm.D. and Ph.D. degrees will greatly enhance the student's research background, critical thinking skills, and marketability for leadership positions within the profession of Pharmacy in academic, government, and industrial environments.

Summer Research Experience

During the summer between the P1 and P2 years, up to six students per year will be allowed into an introductory research experience phase of the Pharm.D./Ph.D. program and will spend twelve weeks rotating throughout these three research laboratories. A summer stipend will be provided for each participating student in return for a 20 hour/week commitment (These funds are to be obtained from the College's differential tuition funds).

Admission

Students in the Doctor of Pharmacy program will make an application to the Department of Pharmaceutical Sciences by December 20ⁿ at the end of the fall term of their second year (P2) in the program for acceptance into the Pharm.D./Ph.D. program. They should have a cumulative GPA of 3.0 or above. At the same time, an application to the graduate school should also be made. The GRE should also be taken by the end of this semester. Pharm.D./Ph.D. applications will be considered by the Department as for all graduate students.

Course requirements during the professional program

The Pharm.D. curriculum is unchanged. In the fall semester of the P1 year, a faculty member(s) will make the students aware of the Pharm.D./Ph.D. option, and briefly outline the program.

The Ph.D. Graduate Dissertation Years (i.e. G1, G2, G3)

Students will receive a monthly stipend, and tuition waiver during Ph.D. graduate year 1 (G1), year 2 (G2) and year 3 (G3). For this time period the students are full-time graduate students in the Department, subject to the same expectations (e.g. seminar participation, 6 credits of PSCI 790, year-round study, etc.). During the three graduate years, the students will be required to complete STAT 725 (3 cr), BIOC 701 (4 cr) and BIOC 702 (4 cr). In addition, if interested, students may take other 700-level courses available in the department and university. Thus by the end of G3, the students will have a minimum of (12 cr) 600-level and (up to 21 cr) 700-level didactic credits. At the end of three graduate years, students would be able to write dissertation and pass the final thesis examination.

In addition to didactic credits, students will take 1 credit Seminar (PSCI 790) in the fall and the Spring semesters of each of the three graduate years. Students will also be required to take 60 thesis research credits (PSCI 799) during three graduate years.

The Clinical Years (P3 & P4)

For the final two years of the professional program, dual degree students will receive a waiver of NDSU base tuition and pharmacy differential tuition. No changes in the didactic coursework of the P3 year are proposed.

Program requirements for the participants

Once accepted into the dual degree program (i.e. the G1 year and beyond), the student is considered to be a full-time graduate student in the Department of Pharmaceutical Sciences. They must maintain a GPA of 3.0 or above.

Ph.D. Summary: 12 credits of 600 and at least 18 out of 21 suggested credits of 700=30 didactic credits, with 6 credits seminar and 60 credits dissertation gives a total of 96 graduate credits. Up to 12 credits of 600 level courses can be used for the Pharm.D.

P3 and P4 years will remain as it is in the traditional Pharm.D. program.

Suggested Course Schedule for Pharm.D. /Ph.D. Students

P-1 Year: It would remain the same. In summer, students are required to do a research rotation in three laboratories. Please contact the Department of Pharmaceutical Sciences (231-7661) for details.

P-2 Year: It would remain the same.

G-1 Year: BIOC 701 (4 cr), BIOC 702 (4 cr), STAT 725 (3 cr), PSCI 790 (2 cr), PSCI 799 (15 cr), PSCI 611 (3 cr), PSCI 670 (3 cr)

G-2 Year: PSCI 790 (2 cr), PSCI 799 (25 cr), and at least any two of the following 3 credit courses: PSCI 612/613/614/615

G-3 Year: PSCI 790 (2 cr), PSCI 799 (20 cr)

P-3 Year: Unchanged

P-4 Year: Unchanged

Students interested in pursuing this option need to see Dr. Singh, the Chairman of Pharmaceutical Sciences, to begin the process. His office is located in Sudro Hall 136.

PHARMACY STUDENT ACTIVITIES & ORGANIZATIONS

The American Pharmaceutical Association-Academy of Students of Pharmacy (APhA-ASP)

The mission of the American Pharmacist Association Academy of Student Pharmacist (APhA-ASP) is to be the collective voice of student pharmacists, to provide opportunities for professional growth, to improve patient care, and to envision and advance the future of pharmacy.

APhA-ASP membership has opportunities which will help NDSU student pharmacists navigate their way through their education and career through the development of leadership skills, eligibility for awards and scholarships, participation in patient care projects, community outreach, networking opportunities, and advocating for their profession.

Christian Pharmacists Fellowship International (CPFI)

Christian Pharmacists Fellowship International (CPFI) is a worldwide ministry of individuals working in all areas of pharmaceutical service and practice. Its mission is to: provide fellowship among like-minded professionals; challenge and promote spiritual growth; encourage the advancement of knowledge and ethics in the practice of pharmacy; encourage the integration of faith into practice; and provide support and opportunity for service in both home and foreign missions.

The NDSU student chapter of CPFI was established in Fall of 2003. Its purpose is to unite, support, and strengthen the faith of Christian pharmacy students, faculty, and staff within the College of Health Professions. The group holds weekly devotional and prayer meetings and also meets every other Thursday in the student lounge for Bible studies and social activities. The group plans in the future to host speakers on various topics. CPFI students have had opportunities to complete a medical missions trip in a foreign country as part of their experiential program.

College of Health Professions Ambassadors

The College of Health Professions Ambassadors is a selective student organization of 35+ members that represents each of the departments within the College, with members from many of the programs within each department as well as the different stages of the programs ranging from pre-professional to graduate students.

The members of this student organization serve an essential role in the College of Health Professions. This premiere group of students works to promote the College through involvement in a variety of events, including: Sudro Hall building tours for prospective students interested in the majors within the College, homecoming tours for alumni, the White Coat ceremony, the Nurse Pinning ceremony, Discover NDSU, and a host of other events for prospective students, current students, and alumni.

The Health Professions Ambassadors are advised by Dana Davis, Director of Outreach and Community Engagement for the College of Health Professions. Students who are interested in this organization should contact Dana.

Dean's Liaison Committee (DLC)

The Dean's Student Liaison Committee shall consist of the Associate Dean for Student Affairs & Faculty Development, who shall be chair, and one student representative from each of the following areas: pre-pharmacy, first year, second year, third year, and fourth year of the pharmacy professional program; first year, second year, and third year of the nursing professional program; two allied sciences professional students (or pre-professional students designated by the professional students); up to two master of public health students; as well as one representative from each of the following student organizations: Academy of Students in Pharmacy, American Association of Pharmaceutical Scientists, American Society of Health System Pharmacists, Christian Pharmacists Fellowship International, College of Health Professions Ambassadors, Kappa Psi, National Community Pharmacists

Association, Native American Professional Program, NDSU Public Health Association, NDSU Student College of Clinical Pharmacy, Pediatric Pharmacy Association, Phi Lambda Sigma, Rho Chi, Sigma Theta Tau, the Students of Allied Sciences Club, and the Student Nurses Association. Student representatives from each group will be elected annually by their respective class or student organization. The purpose of the Dean's Student Liaison Committee is to provide students with an opportunity to interact directly with the Dean's Office, to exchange information, to advise the Dean on student organization budget requests, and to problem-solve on matters of interest and concern to students.

Kappa Psi

Kappa Psi is a professional, co-ed fraternity whose main purpose is to unite its members and to help them become better professionals. We try to achieve this by being actively involved in community affairs, university affairs, and the College of Health Professions.

Throughout our history, the Beta Sigma Chapter of Kappa Psi has maintained a stout brotherhood founded on industry, sobriety, fellowship, and high ideals. Our chapter has been involved in many community service events including volunteering for Bethany Homes, the New Life Center, the

American Diabetes Association, the Ronald McDonald house, the Arthritis Foundation, Dorothy Day Food Pantry. We also provide a monthly meal along with a blood pressure screening at low income housing in West Fargo. We consistently earn the highest cumulative all-Greek GPA. We sponsor an annual Homecoming pig roast, a faculty appreciation dinner, a Spring Formal, and other social activities. We are also active on the local, regional, and national levels of Kappa Psi.

Kappa Psi was founded in May 1879 at the Russell Military Academy in New Haven, Connecticut. Initially, it was a medical pharmaceutical fraternity and continued as such until 1924. At that time, by mutual agreement, the members of both professions decided to separate into two distinct groups. The medical group became Theta Kappa Psi and the Pharmacy group became Kappa Psi. Our chapter was founded April 25, 1924 and was one of the 27 founding chapters of Kappa Psi Pharmaceutical Fraternity. Our chapter became co-ed in 1998. We continue to thrive on the North Dakota State campus as a source of brotherhood for pharmacy students.

If you have any questions about Kappa Psi Pharmaceutical Fraternity, please feel free to contact: Kappa Psi Pharmaceutical Fraternity, 1345 North University Drive, Fargo ND 58102.

Native American Professional Program (NAPP)

To address the critical shortage of Native American pharmacists in the United States, the College initiated NAPP (then known as the Native American Pharmacy Program) in September 1987. The program was designed to recruit and facilitate the entry of Native American students into the College and provide them with counseling and retention services to increase their chances for academic success.

In 2009, NAPP members transformed the program into a student organization and made it inclusive of all the majors within the College, thus changing the name from Native American Pharmacy Program to Native American Professional Programs.

NAPP meets monthly to discuss a variety of topics related to the knowledge and skills needed to pursue degrees offered by the College of Health Professions at NDSU. Counseling and tutorial services for students, financial aid and scholarship information, and internship and future career opportunities also are presented.

The NDSU National Community Pharmacists Association Student Chapter (NCPA)

NCPA is a national organization representing independent community pharmacy practice. In 1987, the national office began a student outreach program that has founded student chapters in 41 colleges of pharmacy across the nation. The mission of the NCPA student outreach program is to foster entrepreneurial spirit in pharmacy students and introduce them to opportunities in independent pharmacy practice and ownership.

Established at NDSU in April 2000, the NCPA Student Chapter provides a forum for students to learn about the many career options available in independent community practice. The objectives of the chapter are to promote the profession of pharmacy and the role of independent pharmacy in the health care system, and to maintain and expand educational programs and strengthen student members' professional, business, and leadership abilities.

Goals of the chapter are to sponsor pharmacists involved in an innovative practice to speak at meetings, start a management/ownership workshop for students interested in owning their own pharmacy, participate in service activities to the community, and to send students to the NCPA Annual Convention in October of each year.

Benefits of membership in the student chapter include a variety of scholarships, low interest student loans, and a student publication called *The New Independent* in addition to the national journal *America's Pharmacist*. Students also receive free registration to NCPA's national convention and opportunities to do a rotation or summer internship at NCPA headquarters in Alexandria, Virginia. Membership is open to all NDSU students enrolled and in good standing with the University.

NDSU Student College of Clinical Pharmacy (NDSU-SCCP)

Established in May 2015, NDSU-SCCP is a student chapter of the American College of Clinical Pharmacy (ACCP). Our mission is to familiarize students with the field of clinical pharmacy by providing information about careers and opportunities within the field of clinical pharmacy, to advocate for the role of clinical pharmacists in providing direct patient care, and to encourage participation in the American College of Clinical Pharmacy at the national level and in local/regional chapters.

NDSU Student Public Health Association

The purpose of the NDSU Public Health Association is to strive to meet the public health needs of the community by increasing awareness and through the multi-disciplinary collaboration of NDSU students, faculty and staff with the goals of promoting health, preventing disease and improving the quality of life. The SPHA provides opportunities for students to learn more about public health issues in the community and to take on leadership roles in public health community engagement.

North Dakota Society of Health System Pharmacists Student Chapter at North Dakota State University (NDSHP-NDSU)

Our mission is to inform students about pharmacy practice opportunities in health-systems, which includes areas such as hospital pharmacy, ambulatory care clinics, home health care, and long-term care.

We invite guest speakers each semester to discuss pharmacy opportunities in the region, including regional residency programs. Each year we hold a clinical skills competition in the fall semester, with the local winning team representing NDSU at the American Society of Health-System Pharmacists (ASHP) Midyear Clinical Meeting. NDSHP-NDSU members are also involved with several community service activities throughout the year.

Our organization is a member of the Student Societies of Health-System Pharmacy (SSHP) in coordination with ASHP and NDSHP. Membership is open to all pre-pharmacy and pharmacy students at NDSU with an interest in health-systems pharmacy.

Pediatric Pharmacy Association (PPA)

PPA is a pediatric-focused pharmacy organization committed to educating student pharmacists and the community on safe and effective medication use in children. Members will focus on the various aspects of pediatric care and safe medication practices in order to positively impact the pediatric community.

Phi Lambda Sigma (PLS)

In February 1991, Phi Lambda Sigma was initiated at NDSU. The purpose of Phi Lambda Sigma, the National Pharmacy Leadership Society, is to promote the development of leadership qualities in pharmacy, especially among young pharmacy students. By peer recognition the Society encourages participation in all pharmacy activities. Membership crosses fraternal and organizational lines; thus, the Society does not compete with any other organization. The Society describes a leader as a "do-er" in pharmacy, one who gets the job done. It avoids the stigma of being called an "officers club" by recognizing the performance, not the office.

Membership in Phi Lambda Sigma consists of four categories: students, faculty, alumni, and honorary. For a student to be eligible for membership, he or she shall be of high moral and ethical character, shall have completed at least 135 quarter hours or 90 semester hours of scholastic work applicable toward the pharmacy degree, and shall have a grade point average of 2.5 on a 4.0 grading system. Prospective members are considered for membership by applying during the spring semester. Applicants are evaluated by the existing membership for admittance into the Society on the basis of their demonstration of dedication, service, leadership in the advancement of Pharmacy, and nomination by existing members. Through recognition of dedication and service by pharmacy students, Phi Lambda Sigma provides an incentive for the development of future leadership potential for the profession of pharmacy.

Rho Chi

The Rho Chi Society is a national pharmacy honor society. The Society encourages high standards of conduct and character and advocates critical inquiry in all aspects of pharmacy. Only the top 20% of the second-year professional class is selected for membership. The Society's activities focus on the advancement of its members through scholarship and service to the community.

Thompson Hall (Health Professions House)

There is special housing on campus for pre-pharmacy students. The Health Professions house is currently located on floors 8 and 9 of Thompson Hall. It is available for pre-professional students who are working to gain admittance into one of the College's programs. When you fill out the NDSU Room & Board Contract application, select Thompson Hall as your residence hall preference, www.ndsu.edu/reslife/residence_hall_application/.

North Dakota State University does not discriminate in its programs and activities on the basis of age, color, gender expression/identity, genetic information, marital status, national origin, participation in lawful off-campus activity, physical or mental disability, pregnancy, public assistance status, race, religion, sex, sexual orientation, spousal relationship to current employee, or veteran status, as applicable.

Direct inquiries to: Vice Provost for Faculty & Equity and Title IX/ADA Coordinator, Old Main 201, 701-231-7708, www.ndsu.edu/equity, ndsu.eoaa@ndsu.edu

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