Standard No. 12: Professional Competencies and Outcome Expectations: Professional pharmacist competencies that must be achieved by graduates through the professional degree program curriculum are the ability to:

1. Provide patient care in cooperation with patients, prescribers, and other members of an interprofessional health care team based upon sound therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social, cultural, economic, and professional issues, emerging technologies, and evolving biomedical, pharmaceutical, social/behavioral/administrative, and clinical sciences that may impact therapeutic outcomes.

2. Manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.

3. Promote health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an interprofessional team of health care providers.

These professional competencies must be used to guide the development of stated student learning outcome expectations for the curriculum. To anticipate future professional competencies, outcome statements must incorporate the development of the skills necessary to become self-directed lifelong learners.

Documentation and Data:
Use a check ☑ to indicate the information provided by the college or school and used to self-assess this standard:

Required Documentation and Data:
☑ List of the professional competencies and outcome expectations for the professional program in pharmacy (SAME DOCUMENT FOR STANDARDS 9 AND 12) (Appendix 9A) & (Appendix 12A)

☑ Examples of didactic and experiential course syllabi, including stated outcomes related to desired competencies (Appendix 12B)

☑ A map/cross-walk of the curriculum (didactic and experiential) to the professional competencies and outcome expectations of the program (Appendix 12C)

Required Documentation for On-Site Review:
☑ All course syllabi (didactic and experiential)

Data Views and Standardized Tables:
It is optional for the college or school to provide brief comments about each chart or table (see Directions).

☑ AACP Standardized Survey: Faculty – Questions 47 – 57 (Appendix 12D)

☑ AACP Standardized Survey: Student – Questions 10 – 29, 84

☑ AACP Standardized Survey: Alumni – Questions 20, 31 - 41

☑ AACP Standardized Survey: Preceptor – Question 25 - 35

Optional Documentation and Data:
☐ Other documentation or data that provides supporting evidence of compliance with the standard
2) **College or School's Self-Assessment:** Use the checklist below to self-assess the program on the requirements of the standard and accompanying guidelines:

<table>
<thead>
<tr>
<th>Professional Competencies 1, 2 and 3 guide the development of stated student learning outcome expectations for the curriculum.</th>
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<thead>
<tr>
<th>The curriculum prepared graduates to provide patient care in cooperation with patients, prescribers, and other members of an interprofessional health-care team based upon sound scientific and therapeutic principles and evidence-based data.</th>
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<th>The curriculum fosters an understanding of, and an appreciation for, the legal, ethical, social, cultural, economic, and professional issues, emerging technologies, and evolving biomedical, pharmaceutical, social/behavioral/administrative, and clinical sciences that may impact therapeutic outcomes.</th>
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<tr>
<th>The curriculum prepares graduates to manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.</th>
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<table>
<thead>
<tr>
<th>The curriculum prepares graduates to promote health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an interprofessional team of health care providers.</th>
<th>S</th>
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<tr>
<th>Outcome statements include developing skills to become self-directed lifelong learners.</th>
<th>S</th>
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<tr>
<th>The curriculum prepares graduates to independently seek solutions to practice-based problems in the scientific and clinical literature.</th>
<th>S</th>
<th>N.I.</th>
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<thead>
<tr>
<th>Graduates possess the knowledge, skills, attitudes, and values needed to enter practice pharmacy independently by graduation.</th>
<th>S</th>
<th>N.I.</th>
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3) **College or School’s Comments on the Standard:** The college or school's descriptive text and supporting evidence should specifically address the following. Use a check ☑ to indicate that the topic has been adequately addressed. Use the text box provided to describe: areas of the program that are noteworthy, innovative, or exceed the expectation of the standard; the college or school's self-assessment of its issues and its plans for addressing them, with relevant timelines; findings that highlight areas of concern along with actions or recommendations to address them; and additional actions or strategies to further advance the quality of the program. For plans that have already been initiated to address an issue, the college or school should provide evidence that the plan is working. Wherever possible and applicable, survey data should be broken down by demographic and/or branch/campus/pathway groupings, and comments provided on any notable findings.

☑ A description of the professional competencies of the curriculum

☑ A description of the assessment measures and methods used to evaluate achievement of professional competencies and outcomes along with evidence of how feedback from the assessments is used to improve outcomes

☑ How the curriculum is preparing graduates to work as members of an interprofessional team, including a description of the courses that focus specifically on interprofessional education

☑ How the college or school is applying the guidelines for this standard in order to comply with the intent and expectation of the standard

☑ Any other notable achievements, innovations or quality improvements

☑ Interpretation of the data from the applicable AACP standardized survey questions, especially notable differences from national or peer group norms
Professional Competencies

As mentioned in Standard 9, the Curriculum Committee developed and College faculty approved pharmacy program level ABOs (Appendix 9A: Ability-Based Outcomes) to define the expected curricular outcomes and corresponding competencies of the program. The ABOs are consistent with curricular goals, current ACPE standards and the AACP Center for the Advancement of Pharmaceutical Education (CAPE) outcomes, as well as other professional standards, guidelines and codes. The ABO’s are categorized into six domains, each of which is followed by specific competency statements. ABO domains 1 (Attitudes and Values) and 2 (Communication) correspond to the professionalization of students; ABO domain 3 (Scientific Foundation) expresses the importance of the scientific core to the practice of pharmacy. The remaining ABO domains, 4 (Patient-Centered Care), 5 (Systems Management) and 6 (Public Health), correlate directly with the professional competencies stated above in the standard (Appendix 12A).

The ABOs were implemented in September 2007 and were communicated to students, faculty and stakeholders via the College website, Blackboard, preceptor handbooks, pharmacy student orientation, and preceptor training sessions. Relevant ABOs appear on all professional pharmacy course syllabi to inform both students and faculty of the role that particular course fulfills in the Pharm.D. program (Appendix 12B). The ABOs undergo periodic evaluation and revision to reflect current standards of practice.

The ABOs are used to guide curriculum development, organization, delivery and improvement. All didactic and experiential education coursework in the program are mapped to the ABOs using our curriculum mapping software (Appendix 12C). This dynamic electronic curricular map is updated annually by faculty and reviewed by the Curriculum Committee to ensure that all ABOs are optimally addressed and assessed at multiple points throughout the curriculum. The mapping data are used to guide curriculum development and improvement to ensure students have adequate opportunities to graduate with these competencies. Faculty attended a college sponsored retreat on classroom assessment in January 2011 in which program level ABO assessments were a topic of discussion. As a result, the College is now working to link evidence of student learning outcome assessments to pertinent ABOs addressed in a particular course. A description of assessment methods used to evaluate achievement of professional competencies is described in more detail in Standard 15.

Interprofessional Team

Inherent in the ABOs is the repeated emphasis on practicing pharmacy as a member of an interprofessional health care team. The College prepares students to work in an interdisciplinary team...
through multiple interprofessional education (IPE) opportunities, both in the classroom and in co-
curricular activities. Interprofessional education is provided in IPPEs, APPEs and elective coursework.
With the implementation of the new curriculum, a new course in IPE will be required for all students in
their P2 year beginning in the spring of 2013. Students also gain interprofessional experience by
participating in student organizations such as the College Ambassadors, Student Public Health
Organization and the Dean’s Liaison Committee interacting with multiple health care disciplines.
Another IPE opportunity is college-wide participation in activities such as Legislative Day, where
students from different disciplines work together to educate legislators on issues of importance to their
respective professions. Pharmacy students also work side-by-side with nursing students to conduct
health screenings at wellness fairs and at immunization clinics. Over 98% of 2011 graduating students
agree the program prepared them to practice pharmacy in interprofessional and collaborative practice
settings and the College anticipates the new required IPE course will strengthen this level of
preparation (Appendix 12D).

Independent Lifelong Learning
Self-directed, lifelong learning is an important skill emphasized in both the College mission statement
and ABOs. While self-directed learning is encouraged throughout the curriculum, the
pharmacotherapy coursework and experiential education provide the greatest opportunities for
students in this area. In experiential education, students self-identify learning goals and objectives
beginning with their first IPPE and continuing throughout the advanced pharmacy practice
experiences. As part of their IPPE and APPE requirements, students indicate how well they have met
these goals and objectives based on reflective and summary reports. In the 2011 graduate student
survey, 96.8% of students felt very prepared to “reflect critically on personal skills and actions and
make plans to improve when necessary,” which is comparable to their peer group (96.3% agreement)
(Appendix 12D).

Patient-Centered Care
Students are educated to provide patient-centered care throughout the curriculum, including didactic
coursework, TWCP lab, IPPE and APPE. When evaluating the results of the AACP Curriculum Quality
Perception Surveys for graduating pharmacy students, alumni, and preceptors, the College achieved
favorable (agree/ strongly agree) responses to many of the questions in these surveys and find the
College is very comparable to its peer institutions (Appendix 12D). For instance, in the 2011 student
survey:

- 100% of graduates agreed with their ability to gather and use specific information (e.g. patient
  histories, medical records) to identify patient medication-related problems
• 98.4% indicated their agreement with their ability to develop a patient care plan to manage each medication-related problem
• 96.8% of graduates agreed with their ability to document pharmaceutical care activities

Managing Health Care System Resources
Several areas in the curriculum are designed to provide students with the education to manage and use resources of the health care system. Students complete four semesters of pharmacy practice training in the TWCP lab. The TWCP lab is a licensed prescription pharmacy capable of providing experience in prescription dispensing, non-sterile compounding, sterile compounding, long-term care dispensing and consultation, home health care delivery, medication therapy management, alternative and complementary medication and over-the-counter drug recommendations, to name a few examples. Phrm 475, Pharmacy Management is a required three-credit course covering fiscal and human resources management, as well as informatics and risk management in pharmacy practice. Both IPPE I and IPPE II expand upon the role of the pharmacist in managing health care resources in institutional (e.g., hospital) and community settings. Lastly, institutional, community and rural required APPE rotations serve to advance and apply these skills. Results from the AACP Quality Perception Survey show 95.3% of graduating students and 95.6% of preceptors agree the curriculum prepares students to manage the medication use system (Appendix 12D).

Health Promotion and Disease Prevention
Since the last accreditation visit in 2006, the College has increased public health educational programming in the curriculum. Phrm 555, IPPE III is focused entirely on public health. In this experience, students research a public health topic, create a scientific poster, and present their poster to professional and patient audiences at public venues. A new three-credit required course, Phrm 540, Public Health for Pharmacists, was developed and will be implemented in the new curriculum. The College developed a Master of Public Health (MPH) degree program, which was approved by the North Dakota State Board of Higher Education in 2010. The program will be accepting students effective in the fall of 2012. Several Pharm.D. students have already indicated interest in the program and even took it upon themselves to create a student public health organization on campus. Future plans include offering a dual Pharm.D./MPH degree.

The Pharm.D. curriculum at NDSU provides students with coursework and professional experiences to support their achievement of the professional competencies necessary to practice pharmacy
independently upon graduation. According to the 2011 AACP Graduating Student Survey, over the last three years, ≥ 98% of graduates feel prepared to enter pharmacy practice (Appendix 12D).

4) **College or School’s Final Self-Evaluation:** Self-assess how well the program is in compliance with the standard by putting a check in the appropriate box ☑:

<table>
<thead>
<tr>
<th>Compliant</th>
<th>Compliant with Monitoring</th>
<th>Partially Compliant</th>
<th>Non Compliant</th>
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<tbody>
<tr>
<td>No factors exist that compromise current compliance; no factors exist that, if not addressed, may compromise future compliance.</td>
<td>No factors exist that compromise current compliance; factors exist that, if not addressed, may compromise future compliance /or Factors exist that compromise current compliance; an appropriate plan exists to address the factors that compromise compliance; the plan has been fully implemented; sufficient evidence already exists that the plan is addressing the factors and will bring the program into full compliance.</td>
<td>Factors exist that compromise current compliance; an appropriate plan exists to address the factors that compromise compliance and it has been initiated; the plan has not been fully implemented and/or there is not yet sufficient evidence that the plan is addressing the factors and will bring the program into compliance.</td>
<td>Factors exist that compromise current compliance; an appropriate plan to address the factors that compromise compliance does not exist or has not yet been initiated /or Adequate information was not provided to assess compliance</td>
</tr>
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</table>

5) **Recommended Monitoring:** If applicable, briefly describe issues or elements of the standard that may require further monitoring.

NA

**Appendices**

**Appendix 9A:** Program Level Ability-Based Outcomes

**Appendix 12A:** Map of ABOs to Professional Pharmacist Competencies

**Appendix 12B:** Example of Course Syllabi

**Appendix 12C:** Curriculum Map to ABOs

**Appendix 12D:** AACP Surveys
The mission of North Dakota State University College of Pharmacy, Nursing, and Allied Sciences is to educate students and advance research and professional service. To achieve this mission, the Pharmacy Doctorate curriculum must:

“Prepare graduates with the professional competencies to enter pharmacy practice in any setting to ensure optimal medication therapy outcomes and patient safety, satisfy the educational requirements for licensure as a pharmacist, and meet the requirements of the university for the degree”; and

“Develop in graduates, knowledge that meets the criteria of good science; professional skills, attitudes, and values; and the ability to integrate and apply learning to both the present practice of pharmacy and the advancement of the profession. Graduates must be able to identify and implement needed changes in pharmacy practice and health care delivery.”

(ACPE Accreditation Standards for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree. 2007. Standard No. 9: The Goal of the Curriculum)

The purpose of this document is to define a minimal set of clear, concise, program-level, ability-based outcomes for the Doctor of Pharmacy education at North Dakota State University College of Pharmacy, Nursing, and Allied Sciences. These outcomes are consistent with current ACPE standards and the American Association of Colleges of Pharmacy Center for the Advancement of Pharmaceutical Education (CAPE) Outcomes as well as other professional standards, guidelines, and codes.

**Program-level, Ability-Based Outcomes** are explicit statements of what students will be able to do as a result of the integration of knowledge, skills, and attitudes gained by completion of the Doctor of Pharmacy educational experience at North Dakota State University College of Pharmacy, Nursing, and Allied Sciences. They reflect the abilities of the students as a result of completion of the curriculum as a whole, rather than completion of a single course or course sequence. Furthermore, program-level Ability-Based Outcomes provide a basis to evaluate curriculum design and assess student competency.

Global competencies that must be achieved by graduates of the Doctor of Pharmacy curriculum are the abilities to: 1) Provide patient-centered care; 2) Manage and use resources of the health care system to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution and improve therapeutic outcomes of medication use; and 3) Promote health improvement, wellness, and disease prevention. Working cooperatively with patients, prescribers, and other members of an interdisciplinary team is central to all three global competencies.
The outcomes in this document are written to reflect competencies necessary of a **generalist, entry-level pharmacist**. A generalist, entry-level pharmacist is described as one who provides on-going, comprehensive, and coordinated patient-centered care to patients regardless of age, gender, disease, drug treatment category, or organ system in any practice setting (e.g. community, hospital, long-term care, home care) as an entry-level pharmacist.\(^1\)\(^2\) Generalist entry-level pharmacists seek the expertise of specialist practitioners for the resolution of specific, complex drug therapy problems to ensure optimal drug therapy outcomes.\(^2\)

It is important to note that students may achieve these ability-based outcomes with varying levels of competency as they progress through the curriculum. However, by graduation, all students should be able to competently perform the functions described in the outcomes at the level of a generalist, entry-level pharmacist entering pharmacy practice in any setting.

**Glossary**

**Ability:** The capacity to do something or perform successfully as a result of integrating knowledge, skills, and attitudes.

**Attitude:** A state of mind, manner, or disposition to act in a certain way towards an idea, object, person, or situation.

**Knowledge:** Acquired information necessary to perform the functions of a generalist, entry-level pharmacist.

**Outcome:** The results associated with instructional experiences

**Ability-based outcome:** Explicit statement of what students will be able to do as a result of the integration of knowledge, skills, and attitudes gained from their instructional experiences.

**Course-level, ability-based outcome:** The knowledge, skills, and attitudes of students resulting from completion of a single course.

**Program-level, ability-based outcome:** Explicit statements describing what students will be able to do as a result of the integration of knowledge, skills, and attitudes gained by completion of the curriculum as a whole.

**Skill:** The ability to perform a task, usually gained through experience and training.

**References**


2. Schwinghammer TL. Defining the generalist pharmacy practitioner. AJPE 2004;68(3):article 76.
ABILITY-BASED EDUCATIONAL OUTCOMES

1. ATTITUDES AND VALUES
Students will integrate, apply, and reinforce professional attitudes and values across the curriculum.

Specific Competencies:
- a. Demonstrate honesty and integrity in all situations.
- b. Demonstrate sensitivity and tolerance for the values, dignity, and abilities of all individuals.
- c. Make decisions and perform duties in accordance with legal, ethical, social, cultural, economic, and professional guidelines.
- d. Self-assess learning needs and design, implement, and evaluate strategies to promote intellectual growth and continued professional competence in the areas of patient-centered care, systems management, and public health.

2. COMMUNICATION
Students will communicate in a caring and respectful manner in all situations using appropriate listening, verbal, nonverbal, and written skills.

Specific Competencies:
- a. Communicate and collaborate with patients, caregivers, health care professionals, administrative and support personnel to engender a team approach to patient-centered care.
- b. Demonstrate effective communication skills in inter-disciplinary relationships to assure safe, efficient, cost-effective utilization of human, physical, medical, informational, and technological resources.

3. SCIENTIFIC FOUNDATION
Students will integrate and apply scientific knowledge of pathophysiology, medicinal chemistry, pharmaceutics, pharmacology, and pharmacokinetics across the curriculum.

Specific Competencies:
- a. Use appropriate scientific terminology to convey concepts of pathophysiology, medicinal chemistry, pharmaceutics, pharmacology, and pharmacokinetics.
- b. Demonstrate an understanding of scientific research and discovery.
- c. Based on differences in chemistry, physical properties, pharmacology, pharmacokinetics, and pharmacogenomics, recommend changes in pharmacotherapeutic regimens that minimize drug interactions, reduce side effects, increase compliance, and improve therapeutic outcomes.
- c. Acquire, comprehend, synthesize, apply and evaluate information about the chemistry, physical properties, pharmacology, pharmacokinetics of therapeutic agents in order to design, implement, monitor, evaluate, and adjust care plans that are patient-specific and evidence based.

4. PATIENT-CENTERED CARE
Students will provide evidence-based patient-centered care in cooperation with patients, prescribers, and other members of an inter-disciplinary health care team taking into account relevant legal, ethical, social, cultural, economic, and professional issues that may impact therapeutic outcomes.

Specific Competencies:
- a. Obtain, interpret and evaluate patient information to determine the presence of a disease or medical condition, assess the need for treatment and/or referral, and identify patient-specific factors that affect health, pharmacotherapy, and/or disease management.
- b. Design, implement, monitor, evaluate, and adjust patient-centered care plans that are evidence-based.
c. Provide information regarding the selection, use and care of medical/surgical appliances and devices, self-care products, and durable medical equipment, as well as products and techniques for self-monitoring or health status and medical conditions.

d. Document patient-centered care activities to facilitate communication and collaboration among the health care team.

e. Retrieve, analyze, and interpret the professional, lay, and scientific literature to provide drug information to patients, caregivers, and other involved health care providers.

f. Apply quality assessment methods to the evaluation of patient-centered care.

5. SYSTEMS MANAGEMENT
Students will manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.

Specific Competencies:

a. Accurately select, prepare, and dispense medications in a manner that promotes safe and effective use.

b. Accurately prepare and compound individual or bulk medications in a manner that promotes safe and effective use.

c. Prepare, store, and assure quality of sterile dosage forms.

d. Provide counseling to patients, families, and care givers.

e. Manage human, physical, medical, informational, fiscal, and technological resources using relevant legal, ethical, social, cultural, economic, and professional principles/issues to assure efficiency and cost-effectiveness.

f. Apply patient- and population-specific data, quality assurance strategies, and research processes to: a) assure that medication use systems minimize drug misadventuring and optimize patient outcomes and b) to develop drug use and health policy, design pharmacy benefits and formulary systems.

6. PUBLIC HEALTH
Students will promote health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an inter-disciplinary team.

Specific Competencies:

a. Assure the availability of effective health promotion and disease prevention services.

i. Promote public awareness of health and disease.

ii. Provide emergency first aid treatment and cardiopulmonary resuscitation (CPR).

iii. Provide patients with access to poison control and treatment information.

iv. Provide immunizations and health-related screenings.

b. Provide population-based care.

i. Develop and implement population-specific, evidence-based disease management programs and protocols based upon analysis of epidemiologic and pharmaco-economic data, medication use criteria and review, and risk reduction strategies.

ii. Retrieve, analyze, and interpret the professional, lay, and scientific literature to provide drug information to other health care providers and to the public.

iii. Apply population-specific data, quality assurance strategies, and research processes to identify and resolve public health problems
Bibliography


### APPENDIX 12A: Map of NDSU Ability-Based Educational Outcomes to ACPE Professional Pharmacist Competencies

<table>
<thead>
<tr>
<th>NDSU Ability-Based Outcome(s)</th>
<th>ACPE Corresponding Professional Pharmacist Competency</th>
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<tbody>
<tr>
<td>1. Attitudes and Values</td>
<td>Provide patient care in cooperation with patients, prescribers, and other members of an interprofessional health care team based upon sound therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social, cultural, economic, and professional issues, emerging technologies, and evolving biomedical, pharmaceutical, social/behavioral/administrative, and clinical sciences that may impact therapeutic outcomes.</td>
</tr>
<tr>
<td>2. Communication</td>
<td>provide patient-centered care through the ability to:</td>
</tr>
<tr>
<td>3. Scientific Foundation</td>
<td>• design, implement, monitor, evaluate, and adjust pharmacy care plans that are patient-specific; address health literacy, cultural diversity, and behavioral psychosocial issues; and are evidence-based</td>
</tr>
<tr>
<td>4. Patient-Centered Care</td>
<td>• function effectively as a member of an interprofessional care team</td>
</tr>
<tr>
<td>5. Systems Management</td>
<td>• manage a successful patient-centered practice (including establishing, marketing, and being compensated for medication therapy management and patient care services rendered)</td>
</tr>
<tr>
<td>5. Systems Management</td>
<td>Manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.</td>
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<tr>
<td>6. Public Health</td>
<td>manage human, physical, medical, informational, and technological resources through the ability to:</td>
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<tr>
<td></td>
<td>• ensure efficient, cost-effective use of these resources in the provision of patient care</td>
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<td></td>
<td>manage medication use systems, through the ability to:</td>
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<tr>
<td></td>
<td>• apply patient- and population-specific data, quality improvement strategies, medication safety and error reduction programs, and research processes to minimize drug misadventures and optimize patient outcomes; to participate in the development of drug use and health policy; and to help design pharmacy benefit</td>
</tr>
<tr>
<td>1. Attitudes and Values</td>
<td>Promote health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an interprofessional team of health care providers.</td>
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<tr>
<td>2. Communication</td>
<td>provide population-based care, through the ability to:</td>
</tr>
<tr>
<td>3. Scientific Foundation</td>
<td>• develop and implement population-specific, evidence-based disease management programs and protocols based upon analysis of epidemiologic and pharmacoeconomic data, medication use criteria, medication use review, and risk-reduction strategies</td>
</tr>
<tr>
<td>4. Patient-Centered Care</td>
<td>promote the availability of effective health and disease prevention services and health policy through the ability to:</td>
</tr>
<tr>
<td>5. Systems Management</td>
<td>• apply population-specific data, quality improvement strategies, informatics, and research processes to identify and solve public health problems and to help develop health policy</td>
</tr>
<tr>
<td>1. Attitudes and Values</td>
<td>To be capable of the above, pharmacy graduates must also be able to:</td>
</tr>
<tr>
<td>2. Communication</td>
<td>• Communicate and collaborate with patients, care givers, physicians, nurses, other health care providers, policy makers, members of the community, and administrative and support personnel to engender a team approach to patient care</td>
</tr>
<tr>
<td>3. Scientific Foundation</td>
<td>• Retrieve, analyze, and interpret the professional, lay, and scientific literature to provide drug information and counseling to patients, their families or care givers, and other involved health care providers</td>
</tr>
<tr>
<td>4. Patient-Centered Care</td>
<td>• Evaluate the quality of basic science and clinical research evidence to appropriately apply study results to practice decisions</td>
</tr>
<tr>
<td>5. Systems Management</td>
<td>• Demonstrate expertise in informatics</td>
</tr>
<tr>
<td>5. Systems Management</td>
<td>• Carry out duties in accordance with legal, ethical, social, economic, and professional guidelines</td>
</tr>
<tr>
<td>6. Public Health</td>
<td>• Maintain professional competence by identifying and analyzing emerging issues, products, and services</td>
</tr>
<tr>
<td>1. Attitudes and Values</td>
<td>• Development of the skills necessary to become self-directed lifelong learners.</td>
</tr>
</tbody>
</table>
Appendix 12B: Example Didactic Syllabus

Pharmacy 537: Renal Disease/Fluid & Electrolytes 2011-2012

Credits: 3
Course Type: Blended; On-line and Face-to-Face
Class Time: Tues/Thursday 3:30 – 4:50 pm & by arrangement
Instructors:
Cynthia Naughton, PharmD, BCPS
Office: 123D Deans Office Sudro
Phone: 231-7601
Email: Cynthia.Naughton@ndsu.edu
Office hours: By arrangement – Contact Liz Frannea (231-7601) or Melissa Eslinger (231-9489) to schedule an appointment that is convenient for you.

Jeff Wilson, PharmD, BCPS
Essentia Health Pharmacy Department
Email: jeff.wilson@essentiahealth.org

BULLETIN DESCRIPTION:
This course focuses on the pathophysiology and pharmacotherapy of major renal diseases including fluid and electrolyte disorders. Emphasis is placed upon application of knowledge to patient care situations and the mastery of pharmacotherapy.

PROGRAM ABILITY-BASED OUTCOMES ADDRESSSED IN THIS COURSE

Scientific Foundation
Students will integrate and apply scientific knowledge of pathophysiology, medicinal chemistry, pharmaceutics, pharmacology, and pharmacokinetics across the curriculum.
Specific Competencies:
c. Recommend changes in pharmacotherapeutic regimens that minimize drug interactions, reduce side effects, increase compliance, and improve therapeutic outcomes.

Patient-Centered Care
Students will provide evidence-based patient-centered care in cooperation with patients, prescribers, and other members of an inter-disciplinary health care team taking into account relevant legal, ethical, social, cultural, economic, and professional issues that may impact therapeutic outcomes.
Specific Competencies:
a. Obtain, interpret and evaluate patient information to determine the presence of a disease or medical condition, assess the need for treatment and/or referral, and identify patient-specific factors that affect health, pharmacotherapy, and/or disease management-

b. Design, implement, monitor, evaluate, and adjust patient-centered care plans that are evidence-based.

d. Document patient-centered care activities to facilitate communication and collaboration among the health care team.

COURSE LEVEL STUDENT LEARNING OBJECTIVES - At the end of this course, the student shall be able to:

1. Interpret physical findings and laboratory data consistent with renal, fluid & electrolyte disorders.

2. Identify drugs implicated in the etiology of renal, fluid & electrolyte disorders.

3. Evaluate pharmacotherapeutic treatment options to correct renal, fluid & electrolyte disorders.

4. Formulate a care plan for the treatment of renal, fluid & electrolyte disorders including therapeutic goals, recommendations for drug therapy (drug, dose, route), monitoring parameters, and patient education.
REQUIRED STUDENT RESOURCES:

STUDENTS WITH SPECIAL NEEDS:
Students with disabilities or other special needs who need accommodation in this course are encouraged to speak with the instructor as soon as possible so that appropriate arrangements can be made.

INSTRUCTIONAL CONTINUITY PLAN FOR DISRUPTION OF CLASSROOM ACTIVITIES:
In the event this class is not able to meet face-to-face for an extended period of time (e.g. 1 week or longer) the instructor will communicate with the student using Blackboard announcements &/or Blackboard email. (In the likelihood the internet is disabled, the instructor will communicate with the student by U.S. Mail.) Students may communicate with instructor using Blackboard email or by phone (Office phone # 231-7601). Depending upon the nature of the classroom disruption, please allow 48-72 hours for a response.

During the campus closure, course content will be delivered on Blackboard technology. (If the internet is disabled, students are expected to use the required textbook and resources identified on the syllabus and course materials to supplement their lecture handouts.) If the classroom disruption coincides with the time an assignment is due or on an exam day, alternative arrangements will be made and communicated to the student using Blackboard or U.S. Mail as described above.

Lastly, depending upon the nature and length of classroom disruption, course requirements may be modified and grading adjusted accordingly. Any modifications in course requirements or grading will be communicated to the student using Blackboard or U.S. Mail as described above.

For questions regarding this Instructional Continuity Plan, please talk with your instructor as soon as possible.

INSTRUCTIONAL CONTINUITY PLAN FOR INDIVIDUAL MEDICAL REASONS:
In the event a student becomes ill, hospitalized, contracts a contagious disease (flu or other) or has a medical condition which precludes them from physically coming to class for a week or longer, the instructor will provide reasonable accommodations to ensure instructional continuity provided the student: 1) Notifies the instructor within 48 hours of the extended absence to request an alternative course delivery method; 2) identifies the reason for and anticipated length of the absence; and 3) Communicates weekly with the instructor during the absence.

OUR TEACHING PHILOSOPHY (OR, WHY WE TEACH THE WAY WE DO):
Pharmacists possess a unique set of knowledge, skills, and abilities. They are highly respected professionals; valued as members of the health care team and trusted by the public. Today’s pharmacists must be able to solve complex multi-dimensional clinical problems. Since critical thinking is the basis of clinical reasoning, students must be able to think critically to solve clinical problems regardless of the practice setting. Our goal is to help prepare you to meet the challenges of pharmacy practice both now and in the future. We believe our role as educators is to be competent, prepared to teach, deliver clear presentations, challenge students to think critically, offer a variety of learning experiences, and provide well constructed handouts. The responsibility for learning, however, remains with you, the student.

“The third year of the professional curriculum is designed to prepare students as clinical practitioners. This year is a comprehensive study of drug therapy management by disease state. Students learn how to select the best therapeutic agent for a specific patient condition or disease state from multiple drug therapy options; to individualize drug therapy for the patient, including selection of the appropriate drug, dose, and route of administration; and to monitor therapy for efficacy and toxicity.” (American Association of Colleges of Pharmacy Accreditation Manual)

Since you have successfully completed the Pharmacodynamics series and 2 years of Pharmaceutical Care / Lab series, we expect that you have learned the pharmacology, trade / generic names, drug classes, common ADRs,
indications, and dosing for the Top 200 drugs. In this class, we will build upon this knowledge to construct individualized pharmacotherapy plans and provide patient-centered care.

We set high standards for ourselves and similarly place **high expectations** for our students as well. We believe all students have the capacity to learn and will rise to the level of competence you set for them.

We encourage **active learning**. We encourage active learning in a variety of ways and complexity using the following methods: Calling on students in class; Mini-cases embedded in the lecture; Cooperative group work; Homework assignments; and Peer teaching.

Students will be called upon regularly in class. We routinely ask questions that probe your understanding of a concept and often will follow up your answer with another question. We do this to help engage you in the learning process and to practice critical thinking. In addition, we will ask students to state in their own words their understanding of key concepts or summarize the key points of the lecture.

Questions from students are always welcome, both in and outside of class. We prefer that questions outside of class be posted in the discussion forum located on Blackboard rather than by email. Chances are, other students have the same question as yours and therefore they will also benefit to see the answers.

We believe in giving students **prompt feedback**. We offer frequent and a variety of opportunities for students to assess their learning with in-class mini-cases, quizzes, take home assignments and 3 exams each semester. The turn-around time for feedback (grading and suggestions for improvement) is very short; the majority of time it is by the next class period or sooner. All take home assignments are discussed at the next class period. Quizzes and exams are graded and returned to the students the following class period; not an easy task as there are more than 85 students enrolled in this course! However, we know this is important to students and if it helps you to self-assess your own learning and serve as motivation, then it is important to us as well.

Lastly, we believe in **time on task** or in other words, “Time plus energy equals learning”. (Chickering & Gramson, 1987) Developing critical thinking skills required by our profession takes time and effort. Succeeding in this course requires attendance, preparation, participation, and time spent on assignments.

**Tips for Student Success**
1. Skim the required readings prior to class.
2. Review notes after each class period paying attention to the learning objectives for that topic.
3. Refer to textbook to aid understanding or clarify questions you may have.
4. Review notes prior to each class period and ask for clarification of points still unclear to you.
5. Use course and topic objectives as your study guide for exams.

**STUDENT EVALUATION CRITERIA**

1. **Quizzes**
   Four quizzes are scheduled during the course, each worth 10 points. You may drop the lowest scoring quiz in the semester. Therefore, **there will be no make-up quizzes for any reason unless** your absence is due to attending a professional, academic-related conference & you have notified us in advance.

2. **Assignments**
   Following most topics, you will be required to complete a case study or other assignment to facilitate learning. These exercises may reiterate issues covered in class or may require additional out-of-class research for completion. Students may work in groups or as individuals depending upon your learning preferences. All completed work must be **TYPED** & given to the instructor **prior** to the start of the following class period to receive credit. If working in a group, hand in ONE assignment with all group member names on it. Items from each of the cases/assignments will be randomly selected for grading based on content, accuracy, and completeness. Up to 10 points can be earned on randomly graded cases in each half of the semester.
3. Examinations
There are 4 cumulative tests (Jan 31 - 50 pts; Feb 23 – 50 pts; April 3 – 50 pts; and April 26 – 50 pts). You may drop the lowest scoring test. **There are no make-up exams unless** your absence is due to attending a professional, academic-related conference & you have notified us in advance. If you must miss an exam because of personal reasons or illness, this will be the exam you drop.

In addition to the three cumulative tests above, a cumulative Final Exam (100 pts) will be given during finals week.

Examinations may contain a combination of case study, short answer, essay, multiple choice, and true/false questions. For the most part, examination questions will assess your ability to apply the material. We are interested in you telling us what you know, rather than repeating verbatim what we told you.

**Examination Policies:**
- To accommodate the number of students enrolled, the class may be divided and test in two different rooms.
- In the interest of space and reducing distraction for others, all backpacks, bags, cell phones, etc. must remain outside the examination room on testing days. Please use your lockers.
- The only personal items allowed on the desk when taking tests are pens, pencils, erasers, and a nonprogrammable calculator.
- No caps may be worn during an examination.
- You will be allowed 1 hour & 20 minutes to complete each test. Once you leave the room, your test will be collected and considered completed.
- Exams and/or exam keys will NOT be allowed to leave the classroom in any format. Exams/exam keys remain the intellectual property of the instructor. Students suspected of violating this policy will be reported for Academic Dishonesty.

4. Attendance and Professionalism
Attendance is required and a professional demeanor is expected at all times. Students are reminded that their actions are governed by the NDSU College of Pharmacy, Nursing, and Allied Science Conduct Code. Points will be deducted for absenteeism &/or unprofessional conduct.

**Grading Criteria:**
Final grades for the course will be determined by the following distribution and scale:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Points</th>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams</td>
<td>150</td>
<td>A</td>
<td>270 or &gt;</td>
</tr>
<tr>
<td>Final Exam</td>
<td>100</td>
<td>B</td>
<td>240 – 269.9</td>
</tr>
<tr>
<td>Quizzes &amp; Assignments</td>
<td>50</td>
<td>C</td>
<td>210 – 239.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D</td>
<td>180 – 209.9</td>
</tr>
<tr>
<td><strong>Total Points</strong></td>
<td><strong>300</strong></td>
<td>F</td>
<td>&lt; 179.9</td>
</tr>
</tbody>
</table>

**Academic Honesty Statement:**
Students are reminded that their actions are governed by the NDSU College of Pharmacy, Nursing, and Allied Science Student Conduct Policy 3.01. All work in this course must be completed in a manner consistent with this policy and NDSU University Senate Policy, Section 335: Code of Academic Responsibility and Conduct (http://www.ndsu.nodak.edu/policy/335.htm).
<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC / ACTIVITY</th>
<th>ASSIGNMENT (Due next class period)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 10</td>
<td>Introduction / Anatomy &amp; Physiology</td>
<td>Water Homeostasis Readings</td>
</tr>
<tr>
<td>January 12</td>
<td>Water Homeostasis</td>
<td>Sodium Homeostasis Readings</td>
</tr>
<tr>
<td>January 17</td>
<td>Quiz #1 (A&amp;P, Water)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sodium Homeostasis – Hyponatremia</td>
<td></td>
</tr>
<tr>
<td>January 19</td>
<td>Sodium Homeostasis - Hyponatremia</td>
<td></td>
</tr>
<tr>
<td>January 24</td>
<td>Sodium Homeostasis – Hypernatremia</td>
<td>Sodium Case Studies</td>
</tr>
<tr>
<td>January 26</td>
<td></td>
<td>Sodium Case Studies</td>
</tr>
<tr>
<td>January 31</td>
<td>Exam #1 (50 points) A/P, Water, Na</td>
<td>Potassium Readings</td>
</tr>
<tr>
<td>February 2</td>
<td>Potassium Homeostasis</td>
<td>Magnesium Readings</td>
</tr>
<tr>
<td>February 7</td>
<td>Potassium Homeostasis</td>
<td>Magnesium Homeostasis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potassium / Magnesium Case Studies</td>
</tr>
<tr>
<td>February 9</td>
<td>Potassium Case Studies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Magnesium Case Studies</td>
<td></td>
</tr>
<tr>
<td>February 14</td>
<td>Quiz #2 (Potassium, Magnesium)</td>
<td>Phosphorus Readings</td>
</tr>
<tr>
<td></td>
<td>Calcium Homeostasis</td>
<td></td>
</tr>
<tr>
<td>February 16</td>
<td>Phosphorus Homeostasis</td>
<td>Calcium/Phosphorus Case Studies</td>
</tr>
<tr>
<td>February 21</td>
<td></td>
<td>Calcium &amp; Phosphorus Case Studies</td>
</tr>
<tr>
<td>February 23</td>
<td>Exam #2 (50 points) K, Mg, Ca, PO₄</td>
<td></td>
</tr>
<tr>
<td>February 28</td>
<td>Acid/Base Homeostasis</td>
<td>Acid-Base Readings</td>
</tr>
<tr>
<td>March 1</td>
<td>Acid/Base Homeostasis</td>
<td>Acid-Base Case Studies</td>
</tr>
<tr>
<td>March 6</td>
<td></td>
<td>Acid/Base Case Studies</td>
</tr>
<tr>
<td>March 8</td>
<td>Drug Dosing in Renal Impairment</td>
<td></td>
</tr>
<tr>
<td>March 12 - 16</td>
<td>Spring Break</td>
<td>Clinical Use of Diuretics Readings</td>
</tr>
<tr>
<td>March 20</td>
<td>Quiz #3 (Acid-Base, Drug Dosing)</td>
<td>Clinical Use of Diuretics Case Studies</td>
</tr>
<tr>
<td>DATE</td>
<td>TOPIC / ACTIVITY</td>
<td>ASSIGNMENT (Due next class period)</td>
</tr>
<tr>
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</tr>
<tr>
<td>March 22</td>
<td>Clinical Use of Diuretics Case Studies</td>
<td>Drug Induced Toxicity Readings/AKI</td>
</tr>
<tr>
<td>March 27</td>
<td>Drug Induced Nephrotoxicity/AKI</td>
<td>Drug Induced Nephrotoxicity/ AKI Case Studies</td>
</tr>
<tr>
<td>March 29</td>
<td>Drug Induced Nephrotoxicity/ AKI Case Studies</td>
<td></td>
</tr>
<tr>
<td>April 3</td>
<td><strong>Exam #3 (50 points)</strong> Drug Dosing, Acid/Base, Diuretics, Drug-Induced Nephrotoxicity, AKI</td>
<td>Chronic Kidney Disease Readings</td>
</tr>
<tr>
<td>April 5</td>
<td>Chronic Kidney Disease I Online Lecture – No Class</td>
<td>CKD I Case Studies</td>
</tr>
<tr>
<td>April 10</td>
<td>Chronic Kidney Disease II</td>
<td>CKD I / II Case Studies</td>
</tr>
<tr>
<td>April 12</td>
<td>CKD I &amp; II Case Studies</td>
<td>Dialysis Readings</td>
</tr>
<tr>
<td>April 17</td>
<td><strong>Quiz #4 (CKD I/II)</strong> Kidney Failure: Dialysis</td>
<td>Transplantation Readings</td>
</tr>
<tr>
<td>April 19</td>
<td>Kidney Failure: Transplantation</td>
<td>Dialysis &amp; Transplantation Case Studies</td>
</tr>
<tr>
<td>April 24</td>
<td>Dialysis &amp; Transplantation Cases</td>
<td></td>
</tr>
<tr>
<td>April 26</td>
<td><strong>TBA</strong></td>
<td></td>
</tr>
<tr>
<td>May 1</td>
<td><strong>Exam #4 (50 points)</strong> (CKD, Dialysis, Transplantation)</td>
<td></td>
</tr>
<tr>
<td>May 3</td>
<td><strong>Review</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TBD</strong></td>
<td><strong>Comprehensive Final Exam (100 points)</strong></td>
<td></td>
</tr>
</tbody>
</table>

* Dates / content subject to change upon discretion of instructors
Appendix 12B: Example Experiential Syllabus  
PHRM 555: Introductory Pharmacy Practice Experience (IPPE) III: Introduction to Public Health  
Fall 2011

Credits: 1

Meeting Times: Hours arranged

Instructors: IPPE Public Health Outreach Mentors, Poster Mentors

Course Coordinator: Rebecca Focken, Pharm.D., R.Ph.  
Director, Introductory Pharmacy Practice Experiences  
Sudro Hall, Room 20  
Phone: 701-231-7477  
Rebecca.Focken@ndsu.edu  
Office Hours: by appointment

IPPE Administrative Assistant: Nancy Nessa  
Sudro Hall, Room 20  
Phone: 701-231-5576  
Fax: 701-231-7606  
Nancy.Nessa@ndsu.edu  
Office Hours: 8:00 a.m.-5:00 p.m., Monday through Friday

Mailing Address:  
Pharmacy Practice  
NDSU Dept. 2660  
20 Sudro Hall, P.O. Box 6050  
Fargo, ND 58108-6050

Prerequisites:

1. Successful completion (Grade of “C” or better) of all required second year Pharm.D. coursework
3. Successful completion of health and background check requirements.
4. Current North Dakota pharmacy intern license AND additional pharmacy intern licensure as required by non-North Dakota practice sites.
5. Students are required to carry at least minimal limits of professional liability insurance, which is provided by the University.

BULLETIN DESCRIPTION

Introduction to patient care opportunities focused on population and public health opportunities for pharmacists. This course consists of 40 hours of supervised pharmacy practice experiences and required reflection.
REQUIRED STUDENT RESOURCES

- IPPE III Student Handbook
- IPPE/APPE Policies and Procedures
- Electronic access to Blackboard. Resources and Information related to all course components is found in the course Blackboard site. Blackboard site also contains electronic access to IPPE III Handbook and IPPE/APPE Policies and Procedures.
- Electronic access to E*Value Student Management System. Each student will upload pharmacy practice experience reflections and a final copy of the public health poster and abstract into his/her electronic student portfolio located within E*Value (https://www.e-value.net/index.cfm).

ABILITY BASED OUTCOMES/COURSE OBJECTIVES

<table>
<thead>
<tr>
<th>ABILITY-BASED OUTCOME DOMAIN</th>
<th>STUDENT OBJECTIVES AND RESPONSIBILITIES</th>
</tr>
</thead>
</table>
| Attitudes, Values, Professionalism         | 1. Self-assess learning needs and design, implement, and evaluate strategies to promote intellectual growth and continued professional development in the area of community based pharmacy practice.  
2. Demonstrates the knowledge and abilities to function in accordance with pharmacy laws and regulations.  
3. Demonstrates regard for patients, superiors, colleagues, other personnel and property  
4. Develops and displays empathy for patients.                                                                 |
2. Engage in appropriate verbal communication with professional peers.  
3. Practice appropriate verbal, nonverbal, listening, and written communication skills with patients and providers.  
4. Demonstrate the ability to actively and appropriately engage in dialogue or discussion, respectfully expressing his/her viewpoint.  
5. Develop an organized public health poster that represents the current and best evidence available.  
6. Demonstrate the ability to prepare a descriptive abstract of the public health poster.  
7. Demonstrate the ability to present a poster on a public health topic.                                                                 |
| Patient Centered Care                      | 1. Retrieve drug information to solve drug related questions.                                                                                                 |
| Systems Management                         | 1. Apply concepts of HIPAA in situations involving disclosure of patient health information.                                                                 |
| Public Health                              | 1. Promote health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an inter-professional team.  
2. Assure the availability of effective health promotion and disease prevention services.  
3. Assess the health literacy of patients.  
4. Promote public awareness of health and disease.  
5. Provide health services/health education to underserved and/or at-risk populations.                                                                 |
In this course, students will complete the following activities:

1. **Public Health Poster Project**
   a. Prepare and present public health poster to audiences of university peers, university faculty, and healthcare professionals twice during spring semester 2012.
   b. Prepare a poster abstract, objective, and biographical data form.

2. **Public Health Patient Perspective: Support Group/Community Health Education Resources**
   a. Attend community support groups available to patients including addiction support groups and chronic disease support groups.

3. **Public Health Provider Perspective: Public Health Outreach Activities**
   a. Work with assisted living facilities in Fargo to address health needs of an elderly population.
   i. Students will be assigned in groups to assisted living facilities within our community and with the help of a mentor will implement programs to address the healthcare needs of this population.

4. **Reflection: Public Health Perspectives**

5. **Assignments Designed to Build Upon the Professional Competencies**

### PHRM 555: IPPE III Timeline

<table>
<thead>
<tr>
<th>Due Date</th>
<th>Description of Activity</th>
<th>Turn information into:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, August 29, 2011</td>
<td>Sign up for Support Group Meeting Date and AA Meeting Date</td>
<td>Sign up by 5:00 p.m. on Bulletin Board outside of Sudro 109 &amp; 110 (across from concept pharmacy classroom)</td>
</tr>
<tr>
<td></td>
<td>Deadline for Public Health Outreach rotation schedule change request using the rotation change/substitution form.</td>
<td>Submit completed Substitution Form to Nancy Nessa in Sudro 20 by 5:00 p.m.</td>
</tr>
<tr>
<td>Friday, September 2, 2011</td>
<td><strong>Meet with poster mentor by this date</strong> to approve 1st and 2nd choice poster topic and submit poster topics to Nancy Nessa.</td>
<td>Nancy Nessa (<a href="mailto:nancy.nessa@ndsu.edu">nancy.nessa@ndsu.edu</a>) via email</td>
</tr>
<tr>
<td></td>
<td>NDSU Bloodborne Pathogen Training Quiz Due</td>
<td>Nancy Nessa</td>
</tr>
<tr>
<td></td>
<td>Public Health Provider Perspective Online Module One Available</td>
<td></td>
</tr>
<tr>
<td>Tuesday, September 6, 2011</td>
<td>Poster Topics posted on Blackboard</td>
<td></td>
</tr>
<tr>
<td>Thursday, September 15, 2011</td>
<td>Pharmacist’s Letter Training Due: HIPPA Privacy, HIPPA Security &amp; Preventing Medicare Fraud Waste and Abuse</td>
<td>Do NOT turn in certificates of completion.</td>
</tr>
<tr>
<td>September 13- October 7, 2011</td>
<td>Public Health Outreach, Assisted Living Facility Session One. Schedule Posted in Blackboard.<strong>Complete Online Module Prior to Scheduled Session</strong></td>
<td></td>
</tr>
<tr>
<td>Thursday, September 22, 2011</td>
<td><strong>REQUIRED Medicare Part D Training</strong> Session, 4:45-6:15 p.m. , Sudro Hall Room 24.</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
<td>Location</td>
</tr>
<tr>
<td>-------------------------------</td>
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</tr>
<tr>
<td>Friday, September 23, 2011</td>
<td>Meet with poster mentor by this date to submit to and discuss detailed literature review and poster outline</td>
<td>Poster Mentor</td>
</tr>
<tr>
<td>Friday, September 30, 2011</td>
<td>Public Health Provider Perspective Online Module Two Available</td>
<td></td>
</tr>
<tr>
<td>October 11-November 4, 2011</td>
<td>Public Health Outreach, Assisted Living Facility Session Two</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Complete Online Module Prior to Scheduled Session</strong></td>
<td></td>
</tr>
<tr>
<td>Friday, October 21, 2011</td>
<td>Meet with poster mentor by this date to submit to and discuss first poster draft</td>
<td>Poster Mentor</td>
</tr>
<tr>
<td>Friday, October 28, 2011</td>
<td>Public Health Provider Perspective Online Module Three Available</td>
<td></td>
</tr>
<tr>
<td>November-December, 2011</td>
<td>Public Health Outreach, Assisted Living Facility Session Three</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Complete Online Module Prior to Scheduled Session</strong></td>
<td></td>
</tr>
<tr>
<td>Friday, November 18, 2011</td>
<td><strong>Meet with poster mentor and his/her other poster groups by this date</strong> to present second poster draft. Submit first draft of poster objective/descriptive abstract</td>
<td>Nancy Nessa, Sudro Room 20</td>
</tr>
<tr>
<td></td>
<td>Submit Biographical data form</td>
<td></td>
</tr>
<tr>
<td>Friday, December 2, 2011</td>
<td>Submit final poster to your mentor and the Technology and Learning Center (IACC room 150 C) by this date for printing*</td>
<td>*Bring printed poster to Nancy Nessa in Sudro 20.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Each student should upload a copy of his/her completed poster to his/her MyFolio™ in E</em>Value.</td>
</tr>
<tr>
<td></td>
<td>Submit final draft of poster objective/descriptive abstract</td>
<td>Nancy Nessa, Sudro Room 20</td>
</tr>
<tr>
<td>Friday, December 16, 2011</td>
<td>Public Health Outreach Assisted Living Facility IPPE Mentor Evaluation Due</td>
<td>E*Value</td>
</tr>
<tr>
<td></td>
<td>Signed verification of completed support group attendance and AA meeting attendance due. Copy of form posted in Blackboard.</td>
<td>Nancy Nessa, Sudro 20</td>
</tr>
<tr>
<td></td>
<td>Reflection One Due</td>
<td><em>Each student should upload a copy of his/her reflection one in E</em>Value.</td>
</tr>
<tr>
<td>Saturday, February 4, 2012</td>
<td>Poster Presentation, NDPhA MidWinter Meeting, 3 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Memorial Union Ballroom</td>
<td></td>
</tr>
<tr>
<td>February-April 2012</td>
<td>Second Poster Presentation, 3 hours</td>
<td></td>
</tr>
</tbody>
</table>
Public Health Poster Project

Introduction
During the third professional year introductory pharmacy practice experience, students are required to complete the process of researching, developing, and presenting a public health-related poster.

Students will receive credit for a total of 12 hours of IPPE for completing the following activities:

- Preparation of public health poster, poster objective, poster abstract, and completion of the biographical data form.
- Poster mentor meetings
- Presentation of public health poster twice during spring semester 2012.

Why Public Health?
Public Health initiatives include the promotion of health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an interprofessional team. Promotion of public health is an educational outcome of the NDSU College of Pharmacy and the Accreditation Council for Pharmacy Education (ACPE).

Public Health vs. Medicine

<table>
<thead>
<tr>
<th>Area of difference</th>
<th>Public Health</th>
<th>Medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>Entire population</td>
<td>Individual</td>
</tr>
<tr>
<td>Emphasis</td>
<td>Disease prevention/health promotion</td>
<td>Disease/diagnose/treatment/cure</td>
</tr>
<tr>
<td>Spectrum of Intervention</td>
<td>Environment, human behavior,</td>
<td>Medical care</td>
</tr>
<tr>
<td></td>
<td>lifestyle, and medical care</td>
<td></td>
</tr>
</tbody>
</table>

Resource Examples for Choosing Your Topic

- Calis KA, et al. Healthy People 2010: Challenges, Opportunities, and a Call to Action for America’s Pharmacists. Pharmacotherapy 2004; 24(9): 1241–1294. (article located on the PHRM 555 blackboard site)
- North Dakota Department of Health website: [http://www.health.state.nd.us](http://www.health.state.nd.us)
- Minnesota Department of Health website: [http://www.mpha.net/](http://www.mpha.net/)
- Centers for Disease Control and Prevention: [http://www.cdc.gov/nccdphp/](http://www.cdc.gov/nccdphp/)

Healthy People 2020 Goals

1. Attain high quality, longer lives free of preventable disease, disability, injury, and premature death
2. Achieve health equity, eliminate disparities, and improve the health of all groups
3. Create social and physical environments that promote good health for all
4. Promote quality of life, healthy development, and healthy behaviors across all life stages

New Areas Added to 2020 (compared to 2010)
Pharmacist Opportunities Examples in Healthy People 2020

- Adverse drug event and medication error prevention and reporting
- Safe and effective pain management
- Appropriate antibiotic usage
- STI and emergency contraception counseling
- Health screening for dyslipidemia, diabetes, hypertension, depression
- Smoking cessation
- Poison prevention
- Prevention of venous thromboembolism events
- Immunizations
- Medication therapy management

Healthy People 2010 Focus Areas by Category (adapted from Calis KA, et al.)

<table>
<thead>
<tr>
<th>Category</th>
<th>Perceived Role of Pharmacists in Meeting Objectives</th>
<th>Focus Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pharmacists’ role is well established. Leadership role is well documented in the literature and/or positive outcomes data are available. Pharmacists are active in these areas, receive adequate education or specialized training, and have adequate manpower.</td>
<td>Diabetes, Heart disease and stroke, Immunization and infectious diseases, Medical product safety, Respiratory diseases</td>
</tr>
<tr>
<td>2</td>
<td>Pharmacists are active in these areas but have not yet established a leadership role. A leadership role is possible or may be emerging. Pharmacists are capable and reasonably well positioned to assume a leadership role. Currently, documentation of a pharmacy’s role is insufficient and/or outcomes data are limited.</td>
<td>Arthritis, osteoporosis, chronic pain, Cancer, Chronic kidney disease, Family planning, Mental health and mental disorders, Tobacco use</td>
</tr>
<tr>
<td>3</td>
<td>Opportunities exist for pharmacists’ involvement but primarily in a supportive role. Future leadership role is possible, but only if additional efforts are made and if existing barriers (e.g., inadequate training, insufficient manpower) are addressed.</td>
<td>Disability and secondary conditions, Maternal, infant, and child health, Nutrition and obesity, Physical activity and fitness, Substance abuse</td>
</tr>
<tr>
<td>4</td>
<td>Little or no role exists for pharmacists in these areas, and opportunities for expansion are limited.</td>
<td>Environmental health, Food safety, Injury and violence prevention, Occupational safety and health</td>
</tr>
</tbody>
</table>

Timeline
1. Throughout the P3 year, you and your selected partner (2 students per group) will be working to complete this project.
2. Assigned faculty mentors are posted in the PHRM 555 Blackboard Site.
Schedule and attend meetings with your mentor to discuss the poster project. During these meetings, students will proactively provide and discuss the following example information with their mentors:

* Ideas for poster content, list of publications/resources that will be used for the literature search, literature review along with poster outline, potential design layout, demonstration of an organized thought process, and an understanding of how the topic relates to public health

3. Each group must decide on two public health poster topics (1st and 2nd choices), and have the topics approved by their mentor by Friday, September 2, at 5:00 p.m. Groups will submit the poster topics to Nancy Nessa via email. There will be no duplication of poster topics. In the event of duplication, final topics will be assigned by the submission date/time.

4. Dr. Focken will post the final assigned poster topics by Tuesday, September 6 on Blackboard.

5. Submit to, and discuss poster outline and literature review (see Blackboard for further direction) with mentor by Friday, September 23.

6. Submit to, and discuss first poster draft with mentor by Friday, October 21.

7. Present second poster draft to the mentor and his/her other poster groups by Friday, November 18.

8. Submit descriptive abstract draft, one poster objective, and completed biographical data form (see Blackboard for further direction) by Friday, November 18.

9. Submit final poster to your mentor, and the Technology Learning Center (IACC room 150C) by Friday, December 2 for printing. Bring the printed poster to Nancy Nessa (Sudro 20).
   - Poster size will be a 48 inches horizontally x 35 inches vertically
   - The College of Pharmacy will cover the cost of printing one poster in color (select ‘satin’ finish)
   - Student names should be included after the title
   - Key references should be listed on the poster.
   - Students will not use copyrighted images without documentation of allowed use and/or copyright permission from the image owner. Note that many Google images are in fact copyrighted images.
   - Any handouts printed to accompany the poster will be the responsibility of the student group

10. Submit final descriptive abstract to Nancy Nessa by Friday, December 2, 2011.

11. Exhibit and present your poster at the NDSU MidWinter NDPhA Meeting on Saturday, February 4, 2012 at the Memorial Union Ballroom (time TBA). Attendance is required. Mentors, other faculty, Pharmacists/Technicians, and pharmacy students will observe your poster presentation at the conference and ask questions appropriate to the topic. Professional dress and behavior are expected during the presentation.

12. Exhibit and present your poster at a second poster presentation (Date/Time TBD) during spring semester 2012. University Faculty, university peers, and/or Pharmacists/Technicians may observe the second poster presentation and ask questions appropriate to the topic. Professional dress and behavior are expected during the presentation. Students will be notified of this second presentation date/time as the fall semester progresses via the course blackboard site and email, an official university communication.

13. The group mentor and a panel of 2 other mentors will grade each poster. Grades will be based on the criteria identified in the grading rubric (attached). Also, points will be deducted (1 point per business day) for missing deadlines throughout the project. A passing score on all components of this project (80%) is required for successful completion of PHRM 555.

Faculty Mentors

Amy Werremeyer, Pharm.D.
Amy.Werremeyer@ndsu.edu
Sudro 20 – 231-7603

Anne Ottney, Pharm.D., BCPS
Anne.Ottney@ndsu.edu
Sudro 118Q – 231-9781

Alicia Fitz, Pharm.D.
Alicia.Fitz@ndsu.edu
Wellness Center – 231-7332

Amy Drummond, Pharm.D.
Amy.Drummond@ndsu.edu
Sudro 118Q – 231-6547

Rebecca Focken, Pharm.D.
Rebecca.Focken@ndsu.edu
Sudro 20 – 231-7477

Jeanne Frenzel, Pharm.D.
Jeanne.Frenzel@ndsu.edu
Sudro 118B – 231-8546

Donald Miller, Pharm.D., FASHP
Donald.Miller@ndsu.edu

Christian Albano, Ph.D.
Christian.Albano@ndsu.edu

Elizabeth Skoy, Pharm.D.
Elizabeth.Skoy@ndsu.edu

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Public Health Patient Perspective: Support Group/Community Health Education Resources

Students will receive credit for a total of 3 hours of IPPE for completing the following activities:

- Attendance at a local open A.A. Meeting
- Attendance at a local support group/community health education meeting

Students will be expected to attend patient based support group meetings during the semester. Students will be required to attend an open alcoholics anonymous (A. A.) meeting and a chronic disease support group meeting. Students must sign up for a support group meeting dates and times by August 29, 2011. It is recommended that students attend support group meetings with another classmate.

The current dress code says: “Within the Concept Pharmacy and during IPPE, and APPE, and outreach activities there are various levels of patient and public contact that require attention to appearance. This dress code will address basic expectations relating to professionalism and safety, recognizing that experiential education sites and outreach activities may modify the dress codes to be consistent with the work and public contact specific to them.”

The student dress code will be modified for alcoholics anonymous and support group meeting attendance this semester. Students will NOT be expected to wear white coats. Student dress should be casual/business casual (i.e. nice jeans (no rips/tears), khakis, shirts without print or logos, sweaters).

Information is posted regarding AA and the healthcare professional and web-links are provided for all disease states that have a support group listed for students to attend. Please be aware of participant confidentiality and do not disclose information about or the identities of participants seen in attendance at meetings.

Public Health Provider Perspective: Public Health Outreach Activities

Students will public health outreach activities at an assisted living facility in Fargo by completing three four hour sessions over the course of the semester consisting of patient education with both individual patients (1-2 patients/session) and in a large group setting. Students experiences will be facilitated by and IPPE Mentor. Student groups for these activities will be the same as the public health poster groups.

Rotation dates/times have been assigned based on current student lab schedules. Students may exchange an entire rotation block of IPPE dates/times with a classmate by using the rotation change/substitution form in this folder. All parties must sign the form. All requests for public health outreach rotation schedule change must be in the office of experiential education by 5:00 p.m. on Monday, August 29, 2011. Students will be notified of approved changes via email from the office of experiential education.

Students will be notified of IPPE Site and Mentor via email when schedules are finalized by the office of experiential education.

Students will be expected to provide proof of negative PPD within the last year as well as sign a confidentiality form for the assisted living facility you are partnered with. The office of experiential education will facilitate this paperwork.
Students will receive credit for a total of 12 hours of IPPE by completing the following activities:

- Assisted Living Facility Session One: September 13-October 7, 2011
  - Focus: Introduction to Health Literacy; Teach Back Method, Completing Medication History
  - 4 hours, tentative schedule below:

<table>
<thead>
<tr>
<th>Timeline</th>
<th>Student Group A</th>
<th>Student Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 minutes</td>
<td>Orientation to Daily Activities</td>
<td>Orientation to Daily Activities</td>
</tr>
<tr>
<td>30 minutes</td>
<td>Patient A</td>
<td>Preparation for Education/Outreach</td>
</tr>
<tr>
<td>30 minutes</td>
<td>SOAP NOTE</td>
<td>Patient B</td>
</tr>
<tr>
<td>30 minutes</td>
<td>Patient D</td>
<td>SOAP NOTE</td>
</tr>
<tr>
<td>30 minutes</td>
<td>SOAP NOTE</td>
<td>Patient C</td>
</tr>
<tr>
<td>30 minutes</td>
<td>Preparation for Education/Outreach</td>
<td>SOAP NOTE</td>
</tr>
<tr>
<td>45 minutes</td>
<td>Blood Pressure Screening/Community Education/Outreach</td>
<td>Blood Pressure Screening/Community Education/Outreach</td>
</tr>
<tr>
<td>25 minutes</td>
<td>Wrap-Up</td>
<td>Wrap-Up</td>
</tr>
</tbody>
</table>

- Assisted Living Facility Session Two: October 11-November 4, 2011
  - Focus: Medication Review, Medication Compliance, Completing a Social History, CV Risk Assessment
  - 4 hours, tentative schedule below:

<table>
<thead>
<tr>
<th>Timeline</th>
<th>Student Group A</th>
<th>Student Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 minutes</td>
<td>Orientation to Daily Activities, Medicare Part D Plan Review</td>
<td>Orientation to Daily Activities, Medicare Part D Plan Review</td>
</tr>
<tr>
<td>30 minutes</td>
<td>Patient A</td>
<td>Preparation for Education/Outreach</td>
</tr>
<tr>
<td>30 minutes</td>
<td>SOAP NOTE</td>
<td>Patient B</td>
</tr>
<tr>
<td>30 minutes</td>
<td>Patient D</td>
<td>SOAP NOTE</td>
</tr>
<tr>
<td>30 minutes</td>
<td>SOAP NOTE</td>
<td>Patient C</td>
</tr>
<tr>
<td>30 minutes</td>
<td>Preparation for Education/Outreach, Wrap-Up</td>
<td>SOAP NOTE</td>
</tr>
<tr>
<td>45 minutes</td>
<td>Blood Pressure Screening</td>
<td>Blood Pressure Screening</td>
</tr>
</tbody>
</table>

- Assisted Living Facility Session Three: November 8-December 9, 2011
  - Focus: Medicare Part D Plan Review, Health Literacy Assessment, Ask Me Three Campaign
  - 4 hours, tentative schedule below:

<table>
<thead>
<tr>
<th>Timeline</th>
<th>Student Group A</th>
<th>Student Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 minutes</td>
<td>Orientation to Daily Activities</td>
<td>Orientation to Daily Activities</td>
</tr>
<tr>
<td>30 minutes</td>
<td>Patient A</td>
<td>Preparation for Education/Outreach</td>
</tr>
<tr>
<td>30 minutes</td>
<td>SOAP NOTE</td>
<td>Patient B</td>
</tr>
<tr>
<td>30 minutes</td>
<td>Patient D</td>
<td>SOAP NOTE</td>
</tr>
<tr>
<td>30 minutes</td>
<td>SOAP NOTE</td>
<td>Patient C</td>
</tr>
<tr>
<td>30 minutes</td>
<td>Preparation for Education/Outreach</td>
<td>SOAP NOTE</td>
</tr>
<tr>
<td>45 minutes</td>
<td>Blood Pressure Screening/Community Education/Outreach</td>
<td>Blood Pressure Screening/Community Education/Outreach</td>
</tr>
<tr>
<td>25 minutes</td>
<td>Wrap-Up</td>
<td>Wrap-Up</td>
</tr>
</tbody>
</table>

Reflection
Students will be required to complete two reflections as a component of this course. The first reflection will be due by Friday, December 16, 2011 and the second reflection will be due by March 15, 2012. Students will receive credit for a total of three IPPE hours for reflection for this course.

The first reflection due will include questions related to public health patient and provider experiences. The second reflection due will be in relation to the public health poster project. Guided Reflection Questions will be posted in Blackboard. Reflections will be uploaded to E*Value and graded using the experiential education reflection rubric.

The reflection is uploaded to E*Value and addresses the following questions related to patient and provider perspectives in public health. The first reflection should be at least three pages in length (but no more than four pages), double spaced, Times New Roman Font, Size 12, one inch margins.
Guided Reflection Questions for Course:

**Public Health Patient Perspective: Support Group Attendance**

1. Based on your chronic disease state and alcoholics anonymous support group experience, identify what you would consider to be the benefits of patient support groups in disease state management.
2. Identify how your perspective on chronic disease and addiction changed as a result of your experiences.

**Public Health Provider Perspective: Public Health Outreach Activities**

1. Identify two new things you learned in preparation for your public health outreach.
2. Identify and describe at least two things you learned about communicating health information to a geriatric population.
3. Identify and describe at least two areas you experienced personal/professional growth while completing your outreach that will benefit you on your APPE rotations. Identify and describe at least one area you will work on improving while on APPE rotations.
4. Describe how your perceptions/views of the provision of patient care to a geriatric population have changed as a result of your experiences.

**Public Health Poster Project (Reflection Component Due March 15, 2012)**

1. Explain how you were able to develop your written communication and literature evaluation skills through the development of your public health poster.
2. Explain how you were able to develop and improve your verbal communication with healthcare providers and patients through the presentation of your public health poster.

**Assignments Designed to Build Upon the Professional Competencies**

NDSU Bloodborne Pathogen Training

Pharmacist’s Letter Training

- HIPAA Privacy, HIPAA Security, Medicare Fraud Waste & Abuse

Public Health Provider Perspective Preparation

- September 2, 2011: Online Module One available. Complete prior to Outreach Session One
- September 22, 2011: Medicare Part D Training, 4:45-6:15 p.m., Sudro 24
- September 30, 2011: Online Module Two available. Complete prior to Outreach Session Two
- October 28, 2011: Online Module Three available. Complete prior to Outreach Session Three

**METHOD OF INSTRUCTION**

The methods of instruction include class meetings, online training modules, practice experiences, individual and group mentoring, and individual student reflection.

**EVALUATION PROCEDURES AND GRADING CRITERIA**

The Grading System used to monitor academic performance for the Introductory Pharmacy Practice Experiences is:

**P (Pass):** Indicates that the student has successfully completed the work of the Introductory Pharmacy Practice Experiences.
**F (Fail):** Indicates either that student performance was unsatisfactory or that the student did not complete the work of the Introductory Pharmacy Practice Experience.

Students must complete and pass **ALL** course components to pass this course.

**Failure to submit required documentation will result in failure of the course.** Students who receive a passing grade at the end of the semester, but fail to complete and/or achieve a passing grade for all course requirements will have their grade changed to **FAIL** with the registrar’s office at the completion of their practice experiences and final due dates.

**All grading rubrics for this course will be posted in the IPPE III Handbook in the Course Blackboard Site.**

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Criteria for Grading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Health Poster Project</td>
<td><strong>PASS/FAIL.</strong> Points Assigned (see below). 80% or 48 points required to successfully complete requirement.</td>
</tr>
<tr>
<td>Public Health Patient Perspective</td>
<td><strong>PASS/FAIL.</strong> Signed Verification Form required to successfully complete requirement (posted in IPPE III Student Handbook in Blackboard)</td>
</tr>
<tr>
<td>Public Health Provider Perspective</td>
<td><strong>PASS/FAIL.</strong> IPPE III Mentor completes student evaluation (see attached) and verifies completion of 12 IPPE hours. Remediation according to Experiential Education Policies and Procedures. Student completes mentor evaluation (see attached).</td>
</tr>
<tr>
<td>Reflection</td>
<td><strong>PASS/FAIL.</strong> Evaluated using IPPE Written Reflection Rubric. Failure to achieve a score of at least 4 out of 8 total points on this assignment will result in remediation of this requirement. Additionally, a score of 1 in either content or spelling and grammar will result in remediation of this assignment (revision of paper).</td>
</tr>
<tr>
<td>Assignments Designed to Build Upon the Professional Competencies</td>
<td><strong>PASS/FAIL.</strong> Attendance and/or completion required to pass course.</td>
</tr>
</tbody>
</table>

**Public Health Poster Project**

**Students must achieve an overall score of 80% (48 points out of 60 points) to successfully pass the public health poster project.**

The public health poster content/presentation component will be evaluated by poster mentors and two other faculty members using the attached rubric on the day of the first poster presentation.

Poster Literature Review/Search (Evaluated by Poster Mentor) (Rubric Posted in Blackboard) 5 points
Poster Outline 2 points
Poster Draft One 2 points
Poster Group Presentation and Poster Draft Two 3 points
Poster Objective/Abstract Submitted 5 points
Printed Poster Submitted 3 points
Poster Content Grade (December 16, 2011) (Rubric Posted in Blackboard) 20 points
First Presentation Grade (February 4, 2012) (Rubric Posted in Blackboard) 20 points
Second Presentation Grade Pass/Fail
Public Health Patient Perspective

Students will complete the verification form posted in the course blackboard site and submit to Nancy Nessa at the completion of chronic disease state and alcoholics anonymous support group experience to receive academic credit.

Public Health Provider Perspective

All supervised introductory pharmacy practice experience course components will be evaluated using the IPPE Mentor Evaluation of the Student (see attachment at the end of this syllabus). This is also posted in the IPPE III Student Handbook in Blackboard.

<table>
<thead>
<tr>
<th>Scores achieved on Student Evaluation by IPPE Mentor</th>
<th>Resulting Grade for Supervised Pharmacy Practice Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Superior”, “Above Average”, and/or “Average” on all components of the evaluation</td>
<td>Pass</td>
</tr>
<tr>
<td>“Below Average” on any component of the evaluation</td>
<td>Remediation required.</td>
</tr>
<tr>
<td>“Poor” on any component of the evaluation</td>
<td>Fail with the repeat of the rotation.</td>
</tr>
</tbody>
</table>

Note: Students receiving multiple ratings of “Below Average” during one rotation or on any component for more than one rotation may be required to repeat a rotation as part of a remediation plan.

Policies and Procedures related to remediation and/or failure of a rotation are outlined in the IPPE/APPE Experiential Education Policies and Procedures posted in the IPPE III Student Handbook in Blackboard.

Reflection

Reflections will be graded by college faculty as pass/fail using the IPPE Scoring Rubric for Written Assignments as outlined in the IPPE III Student Handbook in Blackboard.

PROFESSIONALISM

Students will be expected to dress and behave professionally during practice experiences. Please refer to the Student Dress Code for Concept Pharmacy, Experiential Education, and Outreach Activities for guidelines regarding professional dress.

ATTENDANCE

According to NDSU Policy 333, attendance in classes is expected. Only the course instructor can excuse a student from course responsibilities. (The term "course" includes class, laboratory, field trips, group exercises, and or other activities.)

Veterans and student soldiers with special circumstances or who are activated are encouraged to notify the Director of Experiential Education in advance.

AMERICAN DISABILITIES ACT FOR STUDENTS WITH SPECIAL NEEDS

Any students with disabilities or other special needs, who need special accommodations in this course, are invited to share these concerns or requests with the instructor as soon as possible.
APPROVED ACADEMIC HONESTY STATEMENT

All work in this course must be completed in a manner consistent with NDSU University Senate Policy, Section 335: Code of Academic Responsibility and Conduct (http://www.ndsu.edu/policy/335.htm) and the College of Pharmacy, Nursing and Allied Sciences Academic Conduct Policy (see link below) (http://www.ndsu.edu/medicine/pros_stats/documents/PharmacyHandbook_002.pdf)

INSTRUCTIONAL CONTINUITY PLAN FOR DISRUPTION OF CLASSROOM ACTIVITIES

Inclement Weather:
Students in the Fargo-Moorhead area are not expected to report to Experiential Education sites if classes at North Dakota State University have been cancelled due to inclement weather conditions or weather conditions are such that a student could not travel safely to and from the practice site. Students located outside the F-M area shall follow the local public school policy, and in case of closure, shall contact their preceptor directly for instructions.

Students, who miss hours due to inclement weather, should work with their preceptors and the Experiential Office to make up lost time.

Leave of Absence Policy for Individual Medical Reasons:

Student pharmacists must complete all practice experiences within the “rotation year”, with specific dates designated on an annual basis by the Experiential Education Department.

For circumstances that may arise during the year in which the student pharmacist will miss more than two weeks of any rotation, and is unable to complete all rotation hours within the “rotation year”, the student pharmacist may request a leave of absence. Please contact the IPPE or APPE Experiential Education Director immediately if this situation arises.

Reasonable attempts will be made to help a student pharmacist complete rotation hours. Students are not permitted to reschedule hours outside the specific dates of a rotation cycle without prior approval of the IPPE and APPE Experiential Education Directors.

Rescheduling of a rotation/rotations may result in the inability to complete rotation hours within the “rotation year” resulting in a later graduation date. The Experiential Director will make a reasonable effort to accommodate the student pharmacist regarding an earliest possible graduation date.
# Student Evaluation by Preceptor

**North Dakota State University Department of Pharmacy Practice**

## P3 Professional Year (Public Health Outreach)

<table>
<thead>
<tr>
<th></th>
<th>Superior</th>
<th>Above Average</th>
<th>Average</th>
<th>Below Average</th>
<th>Poor</th>
<th>NA</th>
</tr>
</thead>
</table>

### Student Name: 

### Preceptor: 

### Rotation Site: 

## Section A: Ability Based Outcomes

### 1. Attitudes and Values/Professionalism

- Student arrives at practice site and meetings on time
- Student meets deadlines for completion of tasks and responsibilities.
- Student takes responsibility for his/her own learning.
- Student responds openly and positively to constructive feedback through modification of behavior if necessary.
- Student demonstrates empathy.
- Student makes decisions and performs duties in accordance with legal, ethical, social, cultural, economic, and professional guidelines.
- Student adheres to dress code and maintains personal health and good grooming habits as put forth by the practice setting.

**Comments:**

### 2. Communication Skills

- Student is able to communicate in a caring and respectful manner.
- Student is able to communicate using appropriate verbal skills.
- Student is able to communicate using appropriate nonverbal skills.
- Student is able to communicate using appropriate written skills.
- Student actively and appropriately engages in dialogue and/or discussion.
- Student acts and communicates in a self-assured manner while demonstrating modesty and humility.
- Appropriately responds to an information request from a patient or member of a health care team.
- Documents information related to the identification, resolution, or prevention of drug-related problems in patients.

**Comments:**

### 3. Scientific Foundation

- Makes decisions regarding complex problems that require the integration of scientific, social, cultural, and ethical issues with one’s ideas and values.
### 4. Patient Centered Care

- Student establishes relationships with patients and care givers as necessary to provide patient centered care.
- Student establishes relationships with other health care professionals to provide patient centered care.
- Evaluates information based on patient specific factors to assess the need for treatment and/or referral.
- Provide information regarding techniques for self-monitoring health status or medical conditions.

Comments:

### 5. Systems Management

- Provide counseling to patients, families, and caregivers.

Comments:

### 6. Public Health

- Promote public awareness of health and disease.
- Provide disease prevention services (Blood Pressure Screenings, Education to the Community)

Comments:

<table>
<thead>
<tr>
<th>Superior</th>
<th>Above Average</th>
<th>Average</th>
<th>Below Average</th>
<th>Poor</th>
<th>NA</th>
</tr>
</thead>
</table>

### Section B: Comments

Identify one area in which the student excelled:

Identify one area in which the student could further develop his/her skills:

Signature certifies student completed 12 rotation hours
Professional Experience Program
IPPE III Mentor Evaluation Form

Student: __________________________  Date: __________________________
Mentor: __________________________
Site: __________________________

Use the following scale to indicate your agreement with the following statements
6 = Strongly Agree  3 = Slightly Disagree
5 = Agree  2 = Disagree
4 = Slightly Agree  1 = Strongly Disagree
NA = Not applicable to the Practice Experience or Site

<table>
<thead>
<tr>
<th>Statement</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>The mentor is interested in teaching this experience.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mentor related to me as an individual.</td>
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<td>The mentor encouraged me to actively participate in discussions and</td>
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<td>problem-solving exercises.</td>
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<td>I had adequate patient or guardian contact in this experience to meet the</td>
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<td>learning objectives.</td>
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<td>I had access to necessary patient information.</td>
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<td>I was encouraged to access and use resource materials.</td>
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<td>I had access to all necessary reference materials, either hard copy or</td>
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<td>via electronic means.</td>
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<td>The mentor described their approach to thinking about therapeutic</td>
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<td>problems.</td>
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<td>The mentor is readily available to answer questions and concerns.</td>
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<td>The mentor provided good direction and feedback.</td>
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<td>The mentor is knowledgeable in his/her response to questions regarding</td>
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<td>his/her approach to therapy.</td>
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<td>The mentor evaluated me at the end of the experience in a manner which</td>
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<td>was helpful to me.</td>
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<td>The mentor served as a role model for a pharmacist practicing in this</td>
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<td>setting.</td>
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<td>The experience provided opportunities to interact with other health care</td>
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<td>professionals.</td>
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<td>The goals and objectives of the experience were outlined and/or explained</td>
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<td>at the beginning of the experience.</td>
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<td>Experience activities were well organized and structured.</td>
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<td>This experience provided an environment (physical and philosophical) that</td>
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<td>facilitated my learning.</td>
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<td>Others at this setting were receptive and willing to interact with me.</td>
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<td>My verbal communication skills were enhanced in this experience.</td>
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<td>My written communication skills or documentation skills were enhanced in</td>
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<td>this experience.</td>
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<tr>
<td>My clinical skills were enhanced in this experience.</td>
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<td>I was able to apply previously learned materials in this experience.</td>
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<td>I believe this experience will help me be a better pharmacist.</td>
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</tbody>
</table>
Overall, how would you rate this practice experience?

______ Excellent    ______ Good    ______ Fair    ______ Poor

Please elaborate and give examples

How might this practice experience be improved?
## Appendix 12C: Curriculum Map to Program Level Ability-Based Outcomes

<table>
<thead>
<tr>
<th>Professional Pharm.D. Curriculum</th>
<th>ATTITUDES AND VALUES</th>
<th>COMMUNICATION</th>
<th>SCIENTIFIC FOUNDATION</th>
<th>PATIENT-CENTERED CARE</th>
<th>SYSTEMS MANAGEMENT</th>
<th>PUBLIC HEALTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students will integrate, apply, and reinforce professional attitudes and values across the curriculum.</td>
<td>Students will integrate and apply scientific knowledge of pathophysiology, medicinal chemistry, pharmaceutics, pharmacology, and pharmacokinetics across the curriculum.</td>
<td>Students will communicate in a caring and respectful manner in all situations using appropriate listening, verbal, nonverbal, and written skills.</td>
<td>Students will provide evidence-based patient-centered care in cooperation with patients, prescribers, and other members of an inter-disciplinary health care team taking into account relevant legal, ethical, social, cultural, economic, and professional issues that may impact therapeutic outcomes.</td>
<td>Students will manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.</td>
<td>Students will promote health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an inter-disciplinary team.</td>
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</table>

<table>
<thead>
<tr>
<th>Courses</th>
<th>Addressed</th>
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<th>Addressed</th>
<th>Addressed</th>
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<tr>
<td>Phrm 340, Pathophysiology I</td>
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<td>Phrm 341, Pathophysiology II</td>
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<tr>
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<td></td>
<td>✓</td>
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<tr>
<td>Phrm 351, Pharmaceutical Care I</td>
<td></td>
<td>✓</td>
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<tr>
<td>Phrm 351 L, Pharm Care Lab I</td>
<td></td>
<td>✓</td>
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<tr>
<td>Phrm 352, Intro to Healthcare Sys</td>
<td></td>
<td></td>
<td>✓</td>
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<tr>
<td>Phrm 355, IPPE I</td>
<td>✓</td>
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<tr>
<td>Psci 368, Pharmaceutics I</td>
<td></td>
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<td>Psci 369, Pharmaceutics II</td>
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<td>Psci 410, Pharmaceutical Biotechnology</td>
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<td>Psci 411, Pharmacodynamic I</td>
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<tr>
<td>ATTITUDES AND VALUES</td>
<td>COMMUNICATION</td>
<td>SCIENTIFIC FOUNDATION</td>
<td>PATIENT-CENTERED CARE</td>
<td>SYSTEMS MANAGEMENT</td>
<td>PUBLIC HEALTH</td>
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<td>Psci 412, Pharmacodynamics II</td>
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<td>Psci 413, Pharmacodynamics III</td>
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<td>Psci 414, Pharmacodynamics IV</td>
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<td>Psci 415, Pharmacodynamics V</td>
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<td>Psci 416, Pharmacodynamics VI</td>
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<tr>
<td>Phrm 450, Self Care</td>
<td>✓</td>
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<tr>
<td>Phrm 451, Pharmaceutical Care III</td>
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<td>Phrm 452, Pharmaceutical Care II</td>
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<td>Phrm 452L, Pharmaceutical Care II Lab</td>
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<td>Phrm 455, IPPE II</td>
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<td>Psci 470, Pharmacokinetics</td>
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<td>Phrm 475, Management</td>
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<td>Pharm 485/685 Econ Outcomes Assessment</td>
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<td>Phrm 520, Special Populations</td>
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<td>Phrm 532, Infectious Disease</td>
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<td>Phrm 534, Endocrine/Rheumatology/GI</td>
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<td>Phrm 535, Neoplastic Diseases</td>
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<td>Phrm 536, Neuropsychiatry</td>
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<td>Phrm 538, CV &amp; Pulmonary Disease</td>
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<td>Phrm 551, Pharmaceutical Care III</td>
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<td>Phrm 581-583 Adv Prac Pharm Exp</td>
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</table>
Graduating Student Survey

Question: 10. The Pharm.D. Program prepared me to communicate with health care providers.
Graduating Student Survey

**Question:** 11. The Pharm.D. Program prepared me to communicate with patients and caregivers.

**Appendix 12D: AACP Surveys**

**Longitudinal Data for Q11. Professional Competencies/Outcomes, GSS**

- **2009 (n=43):** 31.2% Strongly Agree, 50.0% Agree, 18.8% Disagree, 0% Strongly Disagree, 0% No Comment
- **2010 (n=60):** 55.0% Strongly Agree, 48.3% Agree, 0% Disagree, 0% Strongly Disagree, 0% No Comment
- **2011 (n=63):** 42.0% Strongly Agree, 50.0% Agree, 0% Disagree, 0% Strongly Disagree, 0% No Comment

Question 11: The Pharm.D. Program prepared me to communicate with patients and caregivers. Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.

**Comparison with National and Cohort Data 2011 (School, n=63; National, n=736; Cohort, n=1654)**

- **Strongly Agree:** School: 14.0%, National: 13.8%, Cohort: 15.9%
- **Agree:** School: 19.2%, National: 28.0%, Cohort: 24.5%
- **Disagree:** School: 0%, National: 0%, Cohort: 0%
- **Strongly Disagree:** School: 0%, National: 0%, Cohort: 0%
- **No Comment:** School: 0%, National: 0%, Cohort: 0%

Question 11: The Pharm.D. Program prepared me to communicate with patients and caregivers.
Graduating Student Survey

**Question:** 12. The Pharm.D. Program prepared me to gather and use specific information (e.g., patient histories, medical records) to identify patient medication-related problems.

![Graph showing longitudinal data for Q12. Professional Competencies/Outcomes. GSS](image)

*North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences*

Longitudinal Data for Q12. Professional Competencies/Outcomes. GSS

**Question:** 12. The Pharm.D. Program prepared me to gather and use specific information (e.g., patient histories, medical records) to identify patient medication-related problems. Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.

![Comparison with National and Cohort Data 2011](image)

*North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences*

Comparison with National and Cohort Data 2011 (School, n=63, National, n=736, Cohort, n=1054)
Graduating Student Survey

Question: 13. The Pharm.D. Program prepared me to develop a patient care plan to manage each medication-related problem

Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.
Question: 14. The Pharm.D. Program prepared me to work with the health care team to implement the patient care plan.
Graduating Student Survey

Question: 15. The Pharm.D. Program prepared me to document pharmaceutical care activities.
Graduating Student Survey

Question: 16. The Pharm.D. Program prepared me to interpret epidemiologic data relevant to specific diseases and their management.

Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.
Question: 17. The Pharm.D. Program prepared me to interpret economic data relevant to treatment of disease.
Graduating Student Survey

**Question:** 18. The Pharm.D. Program prepared me to manage the system of medication use to affect patients.

Appendix 12D: AACP Surveys

Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.
Graduating Student Survey

Question: 19. The Pharm.D. Program prepared me to identify and use risk reduction strategies to minimize medication errors.
Graduating Student Survey

Question: 20. The Pharm.D. Program prepared me to provide patient care in accordance with legal, ethical, social, economic, and professional guidelines.
Graduating Student Survey

Question: 21. The Pharm.D. Program prepared me to work with other stakeholders (e.g., patients and other health professionals) to engender a team approach to assure appropriate use of health care resources in providing patient care.
Graduating Student Survey

**Question:** 22. The Pharm.D. Program prepared me to interpret and apply drug use policy and health policy.
Graduating Student Survey

Question: 23. The Pharm.D. Program prepared me to work with other stakeholders (e.g., patients and other health professionals) to identify and resolve problems related to medication use.
Graduating Student Survey

**Question:** 24. The Pharm.D. Program prepared me to promote wellness and disease prevention services.

Appendix 12D: AACP Surveys
Graduating Student Survey

**Question:** 25. The Pharm.D. Program prepared me to practice pharmacy in interprofessional and collaborative practice settings.

Please note that in 2009, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.
Graduating Student Survey

Question: 26. The Pharm.D. Program prepared me to search the health sciences literature.
Graduating Student Survey

Question: 27. The Pharm.D. Program prepared me to evaluate the health sciences literature.
Graduating Student Survey

Question: 28. The Pharm.D. Program prepared me to reflect critically on personal skills and actions and make plans to improve when necessary.

Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.

Question 28: The Pharm.D. Program prepared me to reflect critically on personal skills and actions and make plans to improve when necessary.
Question: 29. The Pharm.D. Program prepared me to accept and respond to constructive feedback.
Graduating Student Survey

Question: 84. I am prepared to enter pharmacy practice
Faculty Survey

**Question:** 47. The Pharm.D. program prepares students to develop and use patient-specific pharmacy care plans.
Appendix 12D: AACP Surveys

Faculty Survey

**Question:** 48. The Pharm.D. program prepares students to effectively manage a patient-centered pharmacy practice.

[Diagram showing longitudinal data for Q48, Curriculum, Teaching, and Assessment, Faculty Survey from 2008 (n=22) and 2011 (n=32).]

North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences

Longitudinal Data for Q48, Curriculum, Teaching, and Assessment, Faculty Survey

- **2008 (n=22):**
  - SA - Strongly Agree: 80%
  - A - Agree: 17%
  - D - Disagree: 4%
  - SD - Strongly Disagree: 4%
  - NC - No Comment: 0%

- **2011 (n=32):**
  - SA - Strongly Agree: 97%
  - A - Agree: 4%
  - D - Disagree: 0%
  - SD - Strongly Disagree: 0%
  - NC - No Comment: 0%

Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.
Faculty Survey

Question: 49. The Pharm.D. program prepares students to develop disease management programs.

Appendix 12D: AACP Surveys

Question 49: The Pharm.D. program prepares students to develop disease management programs.

Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.
Faculty Survey

Question: 50. The Pharm.D. program prepares students to manage the system of medication use.
Faculty Survey

Question: 51. The Pharm.D. program prepares students to promote the availability of health promotion and disease prevention initiatives.
Faculty Survey

**Question:** 52. The Pharm.D. program prepares students to communicate with patients, caregivers, and other members of the interprofessional health care team.

Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.

Question 52: The Pharm.D. program prepares students to communicate with patients, caregivers, and other members of the interprofessional health care team.
Faculty Survey

Question: 53. The Pharm.D. program prepares students to search the health sciences literature.
Faculty Survey

Question: 54. The Pharm.D. program prepares students to evaluate the health sciences literature.

Appendix 12D: AACP Surveys

North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences

Longitudinal Data for Q54. Curriculum, Teaching, and Assessment, Faculty Survey

PERCENTAGE

- 100%
- 90%
- 80%
- 70%
- 60%
- 50%
- 40%
- 30%
- 20%
- 10%
- 0%

2011 (n=32)

Question 54: The Pharm.D. program prepares students to evaluate the health sciences literature.

Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.

North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences

Curriculum, Teaching, and Assessment, Faculty Survey

Comparison with National and Cohort Data 2011 (School, n=32; National, n=2381; Cohort, n=237)

PERCENTAGE

- 100%
- 90%
- 80%
- 70%
- 60%
- 50%
- 40%
- 30%
- 20%
- 10%
- 0%

Strongly Agree - Agree - Disagree - Strongly Disagree - No Comment

School - National - Cohort

Question 54: The Pharm.D. program prepares students to evaluate the health sciences literature.

Cohort: Creighton University, Drake University, South Dakota State University, University of Colorado, University of Nebraska, University of Wyoming
Faculty Survey

**Question:** 55. The Pharm.D. program prepares students to demonstrate expertise in the area of informatics (resources, devices, and methods required to optimize the acquisition, storage, retrieval, and use of information in pharmacy and healthcare).

*Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment.*

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North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences

**Appendix 12D: AACP Surveys**

Question 55: The Pharm.D. program prepares students to demonstrate expertise in the area of informatics (resources, devices, and methods required to optimize the acquisition, storage, retrieval, and use of information in pharmacy and healthcare).

Comparison with National and Cohort Data 2011 (School, n=32, National, n=2,581, Cohort, n=237)
Faculty Survey

**Question:** 56. The Pharm.D. program prepares students to apply state and federal laws and regulations to the practice of pharmacy.
Appendix 12D: AACP Surveys

Faculty Survey

Question: 57. maintain professional competence.

North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences

Longitudinal Data for Q57. Curriculum, Teaching, and Assessment, Faculty Survey

YEAR

PERCENTAGE

2008 (n=22) 2011 (n=32)

SA - Strongly Agree
A - Agree
D - Disagree
SD - Strongly Disagree
NC - No Comment

27.3% 25.0%

Question 57 maintain professional competence. Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.

North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences

Comparison with National and Cohort Data 2011 (School, n=32, National, n=2381, Cohort, n=2371)

PERCENTAGE

RESPONSE

School National Cohort

Strongly Agree 33.6% 33.6% 33.6%
Agree 66.0% 66.0% 66.0%
Disagree 0.0% 0.0% 0.0%
Strongly Disagree 0.0% 0.0% 0.0%
No Comment 0.0% 0.0% 0.0%

Question 57 maintain professional competence. Cohort: Creighton University, Drake University, South Dakota State University, University of Colorado, University of Nebraska, University of Wyoming
Appendix 12D: AACP Surveys

Preceptor Survey

Question: 25. The Pharm.D. Program prepares students to develop and use patient-specific pharmacy care plans.
Preceptor Survey

Question: 26. The Pharm.D. Program prepares students to effectively manage a patient-centered pharmacy practice.

Appendix 12D: AACP Surveys

North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences

Longitudinal Data for Q26, Curriculum, Preceptor Survey

2008 (n=1,555) 2010 (n=1,790)

SA - Strongly Agree
A - Agree
D - Disagree
SD - Strongly Disagree
NC - No Comment

Question 26: The Pharm. D. Program prepares students to effectively manage a patient-centered pharmacy practice. Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.
Preceptor Survey

**Question:** 27. The Pharm.D. Program prepares students to develop disease management programs.

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**Appendix 12D: AACP Surveys**
Appendix 12D: AACP Surveys

Preceptor Survey

**Question:** 28. The Pharm.D. Program prepares students to manage the system of medication use.

![Graph showing longitudinal data for Q28 Curriculum, Preceptor Survey]
Preceptor Survey

**Question:** 29. The Pharm.D. Program prepares students to promote the availability of health promotion and disease prevention initiatives.

Appendix 12D: AACP Surveys

Question 29: The Pharm.D. Program prepares students to promote the availability of health promotion and disease prevention initiatives.

Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.

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Question 29: The Pharm.D. Program prepares students to promote the availability of health promotion and disease prevention initiatives.

Cohort: Creighton University, Iowa State University, Oregon State University, South Dakota State University, The University of Iowa, University of Colorado, University of Kansas, University of Nebraska, University of Wyoming.
Preceptor Survey

Question: 30. The Pharm.D. Program prepares students to communicate with patients, caregivers, and other members of the interprofessional health care team.
Preceptor Survey

Question: 31. The Pharm.D. Program prepares students to search the health sciences literature.

Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.
Preceptor Survey

Question: 32. The Pharm.D. Program prepares students to evaluate the health sciences literature.

Please note that in 2008, some questions had only the options of Agree, Disagree, and No Comment. However, these graphs are based on latest survey specifications.
Preceptor Survey

**Question:** 33. The Pharm.D. Program prepares students to demonstrate expertise in the area of informatics (resources, devices, and methods required to optimize the acquisition, storage, retrieval, and use of information in pharmacy and healthcare).

Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment.
Preceptor Survey

Question: 34. The Pharm.D. Program prepares students to apply state and federal laws and regulations to the practice of pharmacy.

North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences

Longitudinal Data for Q34. Curriculum, Preceptor Survey

<table>
<thead>
<tr>
<th>YEAR</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008 (n=1,55)</td>
<td>92.6%</td>
</tr>
<tr>
<td>2010 (n=1,790)</td>
<td>65.4%</td>
</tr>
</tbody>
</table>

SA: Strongly Agree  A: Agree  D: Disagree  SD: Strongly Disagree  NC: No Comment

Question 34: The Pharm.D. Program prepares students to apply state and federal laws and regulations to the practice of pharmacy.

Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.

North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences

Comparison with National and Cohort Data 2010 (School, n=1,790; National, n=8,370; Cohort, n=1,088)

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>20.6%</td>
</tr>
<tr>
<td>Agree</td>
<td>31.8%</td>
</tr>
<tr>
<td>Disagree</td>
<td>11.5%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>39.5%</td>
</tr>
<tr>
<td>NC: No Comment</td>
<td>24.8%</td>
</tr>
</tbody>
</table>

School  National  Cohort

Question 34: The Pharm.D. Program prepares students to apply state and federal laws and regulations to the practice of pharmacy.

Cohort: Creighton University, Drake State University, Oregon State University, South Dakota State University, The University of Iowa, University of Colorado, University of Kansas, University of Nebraska, University of Wyoming.
Preceptor Survey

**Question:** 35. The Pharm.D. Program prepares students to maintain professional competence.

*Appendix 12D: AACP Surveys*

North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences

**Longitudinal Data for Q35. Curriculum, Preceptor Survey**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>2008 (n=155)</th>
<th>2010 (n=179)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA</td>
<td>59.4%</td>
<td>55.9%</td>
</tr>
<tr>
<td>A</td>
<td>32.0%</td>
<td>48.5%</td>
</tr>
<tr>
<td>D</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>SD</td>
<td>8.6%</td>
<td>5.6%</td>
</tr>
<tr>
<td>NC</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Question 35:** The Pharm.D. Program prepares students to maintain professional competence. Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.

North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences

**Comparison with National and Cohort Data 2010 (School, n=179; National, n=6170; Cohort, n=1088)**

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>School</th>
<th>National</th>
<th>Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>60.0%</td>
<td>57.9%</td>
<td>61.2%</td>
</tr>
<tr>
<td>Agree</td>
<td>30.3%</td>
<td>31.5%</td>
<td>30.1%</td>
</tr>
<tr>
<td>Disagree</td>
<td>19.7%</td>
<td>20.6%</td>
<td>18.7%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>No Comment</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Question 35:** The Pharm.D. Program prepares students to maintain professional competence.**

Cohort: Creighton University, Idaho State University, Oregon State University, South Dakota State University, The University of Iowa, University of Colorado, University of Kansas, University of Nebraska, University of Wyoming.
Alumni Survey

Question: 20. When I was a student I knew what the program outcomes were.
Alumni Survey

Question: 31. The Pharm.D. Program prepared me to develop and use patient-specific pharmacy care plans.

Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.
Alumni Survey

Question: 32. The Pharm.D. Program prepared me to effectively manage a patient-centered pharmacy practice.
Alumni Survey

Question: 33. The Pharm.D. Program prepared me to develop disease management programs.

Appendix 12D: AACP Surveys

Question 33: The Pharm.D. Program prepared me to develop disease management programs.

Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.
Alumni Survey

**Question:** 34. The Pharm.D. Program prepared me to manage the system of medication use.

**Appendix 12D: AACP Surveys**

Question 34: The Pharm.D. Program prepared me to manage the system of medication use. Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.
Alumni Survey

**Question:** 35. The Pharm.D. Program prepared me to promote the availability of health promotion and disease prevention initiatives.

Note: The graph shows longitudinal data for Question 35, Curriculum Alumni Survey, comparing the years 2009 and 2011. It indicates the percentage of respondents who strongly agree, agree, and strongly disagree with the statement.

Note: In 2008, some questions had only the options of Agree, Disagree, and No Comment. However, these graphs are based on latest survey specifications.
Alumni Survey

Question: 36. The Pharm.D. Program prepared me to communicate with patients, caregivers, and other members of the interprofessional health care team.
Alumni Survey

Question: 37. The Pharm.D. Program prepared me to search the health sciences literature.

North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences

Longitudinal Data for Q37. Curriculum, Alumni Survey

<table>
<thead>
<tr>
<th>Year</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>No Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 (n=75)</td>
<td>66.6%</td>
<td>33.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011 (n=83)</td>
<td>67.7%</td>
<td>32.3%</td>
<td></td>
<td></td>
<td>0.0%</td>
</tr>
</tbody>
</table>

YEAR

Question 37. The Pharm.D. Program prepared me to search the health sciences literature. Please note that in 2008, some questions had only the options of Agree, Disagree and No Comment. However, these graphs are based on latest survey specifications.

North Dakota State University/College of Pharmacy, Nursing, and Allied Sciences

Curriculum Alumni Survey

Comparison with National and Cohort Data 2011 (School, n=83; National, n=1801; Cohort, n=433)

<table>
<thead>
<tr>
<th>Response</th>
<th>School</th>
<th>National</th>
<th>Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>15.0%</td>
<td>17.9%</td>
<td>16.7%</td>
</tr>
<tr>
<td>Agree</td>
<td>25.2%</td>
<td>23.3%</td>
<td>25.7%</td>
</tr>
<tr>
<td>Disagree</td>
<td>25.7%</td>
<td>22.2%</td>
<td>21.6%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>14.8%</td>
<td>11.2%</td>
<td>11.2%</td>
</tr>
<tr>
<td>No Comment</td>
<td>20.5%</td>
<td>36.5%</td>
<td>25.9%</td>
</tr>
</tbody>
</table>

Response
Alumni Survey

Question: 38. The Pharm.D. Program prepared me to evaluate the health sciences literature.
Alumni Survey

Question: 39. The Pharm.D. Program prepared me to demonstrate expertise in the area of informatics (resources, devices, and methods required to optimize the acquisition, storage, retrieval, and use of information in pharmacy and healthcare).
Alumni Survey

Question: 40. The Pharm.D. Program prepared me to apply state and federal laws and regulations to the practice of pharmacy.
Alumni Survey

Question: 41. The Pharm.D. Program prepared me to maintain professional competence.

Appendix 12D: AACP Surveys