COURSE TITLE: Institutional Pharmacy Advanced Pharmacy Practice Experience (APPE)

DEPT/COURSE NUMBER: PHPR 710

CREDIT HOURS: 4

CLOCK HOURS/WEEK: 40 NO. OF WEEKS: 4

REQUIRED/ELECTIVE: This APPE may serve as a Hospital / Health Systems APPE or as an Elective

PREREQUISITES: P-4 standing and registration as an intern with the Nebraska Department of Health & Human Services, and, if applicable, registration as an intern (or other designation used), if required, with Board of Pharmacy of the practice site’s state.

DESCRIPTION: Experiential training in advanced institutional pharmacy practice

INSTRUCTORS: Various

COURSE OBJECTIVES:

At the completion of the practice experience, the student shall be able to:
1. Describe the role of a pharmacist in pharmaceutical care in the institutional setting.
2. Utilize print and electronic information sources to ensure appropriate pharmacotherapy in the institutional pharmacy setting.
3. Assess patient’s health status and appropriateness of therapy including prospective drug utilization review.
4. Interact effectively with other health care providers to ensure appropriateness of treatments.
5. Ensure patients understanding and adherence to treatment.
6. Accurately dispense medications and devices.
7. Accurately compound medications.
8. Promote public health and advocate disease prevention through the use of patient education and monitoring processes.
10. Explain and demonstrate management practices in the institutional setting.

PROGRAMMATIC OUTCOMES:

See PHPR 710 Institutional Pharmacy APPE Core Competencies document, attached as Appendix A.

INSTRUCTIONAL METHODS:

Instructional methods may include, but not be limited to, self-study, observation, monitoring all assigned patients, participation in patient care activities, problem solving, discussions with instructors, presentations, and submission of clinical documentation for instructor evaluation.

ASSESSMENT MEASURES:

Assessment measures may include, but not be limited to, traditional examinations and quizzes, group examinations, performance based assessment methods of general abilities and professional competencies, e.g., case presentations and discussions.

Student’s performance will be assessed in each category applicable to the rotation based upon the skills and knowledge demonstrated during the rotation; expectations may vary depending on the timing of the rotation during the rotation year (e.g., higher expectations during later rotations). The student will be evaluated at mid-
rotation and at the end of the rotation using forms provided in Appendix B (which may include additional criteria as defined by specific rotations).

**Mid-rotation evaluation:** The preceptor will complete an evaluation of the student at mid-rotation, and the student is required to complete a self-assessment. The preceptor and student will meet to discuss these performance assessments.

The preceptor will notify the Director of Experiential Programs in cases where students are not progressing to satisfactory levels and are at significant risk of being unable to successfully complete the rotation.

**Final evaluation:** At the conclusion of the rotation, the preceptor will complete the final evaluation, and the student is required to complete a self-assessment. The preceptor will interact with the student in exit interview to discuss final grade.

**GRADING METHODS:**

Grading for this APPE is Pass/Fail/Honors:

- **Pass** = Student meets or exceeds expectations
- **Fail** = Student does not meet expectations
- **Pass with Honors** is a grade assigned by a review committee within the Office of Experiential Programs (OEP) to not more than 20% of students completing Institutional APPE rotations in a given semester. The OEP review utilizes the preceptor assessment forms and written justification of the honors recommendation. Pass with honors recommendations by preceptors should not be discussed with students at the time of the final rotation grading meeting; the student should only be instructed that they have passed or failed the rotation.

**INSTRUCTIONAL OBJECTIVES:**

1. **Describe the role of a pharmacist in pharmaceutical care in the institutional setting.**
   The student shall be able to:
   - Describe how pharmacists provide pharmaceutical care in the institutional pharmacy setting as evidenced by discussions and interactions with the preceptor and other pharmacists.

2. **Utilize print and electronic information sources to ensure appropriate pharmacotherapy in the institutional pharmacy setting.**
   The student shall be able to:
   - Assess appropriateness of therapy based on patients’ demographic information and medical conditions
   - Screen for and document allergies, interactions, contraindications and duplicate therapies.
   - Modify the treatment plan, (e.g., recommends discontinuation of therapy, new therapy, etc.) as indicated.

3. **Assesses patient’s status and appropriateness of therapy including prospective drug utilization review.**
   The student shall be able to:
   - Obtain information to create and maintain a confidential patient record.
   - Screen for and document allergies, interactions, contraindications and duplicate therapies.
   - Modify the treatment plan, (e.g., recommends discontinuation of therapy, new therapy, etc.) as indicated.

4. **Interact effectively with other health care providers to ensure appropriateness of treatments.**
   The student shall be able to:
   - Provide and document drug information activities.
   - Answer questions relating to specific patients’ drug therapy.
   - Maintain confidentiality in all aspects of communications regarding patient information.
   - Provide accurate and reliable patients’ disease management information to health professionals.
   - Present continuing education information.
   - Conduct in-service training for pharmacy staff.
5. Ensure patients understanding and adherence to treatment.  
The student shall be able to:  
- Assess and validate the ability of patients and their agents to obtain, process, understand and use health- and medication-related information.  
- Provide accurate response to drug information requests written and verbally.

6. Accurately dispense medications and devices.  
The student shall be able to:  
- Perform routine assessment of legibility, accuracy, and completeness.  
- Clarify an incomplete or illegible medication order.  
- Verify and corrects errors.  
- Communicate with other health professionals regarding drug or patient information, etc.  
- Make a determination not to fill a medication as originally prescribed.  
- Perform routine activity.  
- Prepare intravenous admixtures and total parenteral nutrition solutions.  
- Select a bioequivalent multi-source pharmaceutical product for the prescribed brand product in accordance with state practice regulations.  
- Carry out therapeutic interchange (product interchange under protocol, formulary or prior authorization).  
- Determine dosage based on patient weight, age, etc.  
- Re-verify the medication order processing before dispensing the medication.  
- Provide information on drug interactions.  
- Document dispensing, delivery or administration of medication.

7. Accurately compound medications.  
The student shall be able to:  
- Compound parenteral and non-parenteral drug products using accurate calculations, pharmaceutical components, and techniques.  
- Determine appropriate storage of compounded medications before and after dispensing.

8. Promote public health and advocate disease prevention through the use of patient education and monitoring processes.  
The student shall be able to:  
- Participate in activities that promote health and wellness and the use of preventive care measures.

The student shall be able to:  
- Evaluate the acceptability and accuracy of a prescription and verify that the information is correct then correctly prepare the prescription and label for dispensing.  
- Perform accurate pharmaceutical calculations, especially involved in the preparation of compounded oral, topical, rectal, ophthalmic, or parenteral preparation, and pharmacokinetic calculation of appropriate doses.

10. Explain and demonstrate management practices in the institutional setting.  
The student shall be able to:  
- Manage inventory, including purchasing, medication storage, performing physical inventory, review controlled substance accountability procedures, etc.  
- Manage ordering systems (non-prescription, prescription, controlled substances inventories).  
- Use the information systems at the site.  
- Describe the requirements for continuous licensure.  
- Follow state and federal regulatory agency requirements and procedures.  
- Follow procedures for medication storage.  
- Follow procedures for detection and disposal of outdated medications.  
- Follow policies/procedures for drug recalls.  
- Identify, assess and report adverse drug reactions.  
- Identify, assess and report medication errors.
• Describe the role of Pharmacy and Therapeutics (P&T) Committee in the medication use process.

COURSE OUTLINE:

Required activities:
1. General prescription storage, processing, dispensing, consulting with patients regarding self-care products, and pharmacy management activities such as allocating and using key resources and supervising pharmacy technical staff, participating in purchasing activities, creating a business plan to support a patient care service, managing the medication use system and applying the systems approach to medication safety, participating in the pharmacy's quality improvement program.
2. On assigned patients, students monitor and assist in pharmacotherapeutic management under supervision of pharmacists.
3. Weekly: discussion with preceptor (approximately one hour each) Topics may include human resource management, medication resources management and pharmacy data management systems, including pharmacy and financial performance.
4. One time per practice experience: In-service presentation of topic agreed upon by the student and the preceptor.
5. One time per practice experience: Discussion of pharmacy laws and regulations required in the practice.

Additional activities by individual week:
Week 1:  Day 1: Orientation; introduction to pharmacy staff; orientation to pharmacy services, OTC review 
Day 2: Discussion of preceptor/student expectations and review of APPE requirements
Week 2:  Discussion of the appropriateness of the patient's specific pharmacotherapeutic agents, dosing regimens, dosage forms, routes of administration, and delivery systems, mid-practice experience evaluation
Week 3:  Discussion of legal and ethic principles of pharmacy practice and aspects of life-long learning; managing the drug regimen through monitoring and assessing patient information
Week 4:  Discussion of regarding compliance with accreditation, legal, regulatory/legislative, and safety requirements; Student presentations.

Required student documentation submitted upon completion of the APPE:
1. Written assignment on the topic agreed upon by preceptor and student.
2. Journal of student activities.
3. Written report on pharmacy management, pharmacy law or a patient's specific therapeutic regimen.

Example of activities for one week:
Week 2:  Student participates in preparing and dispensing medications, patient monitoring and pharmaceutical care activities and management of the pharmacy
   Mon:  Provide service in the pharmacy; review information and activities necessary to complete prospective DUR; discuss with preceptor the managing systems for storage, preparation, and dispensing of medications
   Tues:  Provide service in the pharmacy; meet with the preceptor to discuss allocating and using key resources and supervising pharmacy technical staff; participate in purchasing activities
   Wed:  Provide service in the pharmacy; begin preparation of in-service presentation, review aspects of pharmacy law (e.g., ordering controlled substances, annual inventory requirements)
   Thurs: Provide service in the pharmacy; meet with preceptor to discuss the managing of the medication use system and applying the systems approach to medication safety
   Fri:  Provide service in the pharmacy; review pharmacy management situations (e.g., the use of pharmacy technicians in the dispensing process), meet with preceptor for mid-practice experience evaluation; participate in the health system’s formulary process

PHPR 710 Institutional Pharmacy APPE Syllabus, rev. May 2015 - Page 4 of 8
PHPR 710 Institutional Pharmacy APPE Core Competencies  
(Revised October 2014)

Outcomes and competencies from the University of Nebraska College of Pharmacy Doctor of Pharmacy (PharmD) Program Learning Outcomes and Competencies that will be addressed in this course.

PROGRAMMATIC OUTCOMES:

I. PHARMACEUTICAL CARE. Provide pharmaceutical care in cooperation with patients, prescribers, and other members of an interprofessional health care team based upon sound physical, chemical, biological, and therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social, economic, and professional issues, emerging technologies, and evolving biomedical, sociobehavioral, and clinical sciences that may impact therapeutic outcomes.

A. Provide patient-centered care

1. Foundational learning outcomes

a. Numeracy, statistics, experimental design, measurement, medical terminology

6) As applicable to pharmaceutical preparations, demonstrate knowledge of logarithms, elements of calculus, statistical treatment of errors, measuring, weighing, and significant figures
7) Demonstrate an understanding of the dimensions and units of measurements for drugs and chemicals, expressions of quantity and concentration for drug products and preparations, and appropriate methods of expressing doses and dosing regimen for patients
8) Demonstrate a grasp of basic medical terminology used in health care professions

c. Microbiology

1) Demonstrate an understanding of the classification and phylogeny of microscopic pathogens (e.g., bacteria, viruses, fungi)

d. Anatomy, physiology, pathology

1) Describe the nature, location and function of a selected component of the human anatomy

e. Medicinal chemistry and pharmacology

1) Describe fundamental concepts of drug-receptor interactions
5) Given the chemical structure of a selected drug, be able to identify the pharmacological class of the drug

f. Pharmaceutics, biopharmaceutics, pharmacokinetics and pharmacodynamics

1) Demonstrate an understanding of thermodynamic principles and concepts as applied to the stability and properties of pharmaceutical compounds
6) Demonstrate an understanding of physical pharmacy principles and formulation in pharmaceutical compounding
7) Demonstrate an understanding of basic calculations and their use in the practice of pharmacy
11) Demonstrate an understanding of stabilization and extending the expiration date of drug products (e.g., pH control, antioxidants, packaging)
13) Describe the anatomical and physiological factors which influence the route of administration of a drug in common dosage forms
15) Describe the major physical and chemical properties of drugs and excipients which influence the performance of drugs and dosage forms
20) Demonstrate an understanding of the principles of aseptic technique and aseptic processing of sterile dosage forms
27) Modify dosage regimens for patients based on the physiological changes brought about by disease, patient variability, drug interactions or other factors

h. Health behavior

1) Describe how patient characteristics (e.g., age, gender, income, race, ethnicity, family status) can influence the patient's health-related beliefs, attitudes, expectations, and behaviors
2) Describe how behaviors of patients and health care providers are influenced by health-related beliefs, attitudes, and expectations
4) Identify and describe the effects of factors that influence patient learning and comprehension

i. Law and Ethics

1) Recognize the pharmacists professional obligation to patients
2) Describe the reasonable person concept
3) Identify the requirements for issuance of a prescription/drug order
4) Identify the requirements for appropriately counseling a patient, including requirements for documentation
5) Describe the role of the pharmacist as patient advocate
6) Compare and contrast ends-oriented and means-oriented ethical principles
7) Differentiate between judgment, ethics, and values as it applies to the profession of pharmacy
8) Differentiate between legal and ethical duties related to patient rights, including patient confidentiality

j. Information retrieval and handling

1) Demonstrate proficiency in searching the biomedical literature using a variety of resources (including librarians and information professionals) and interfaces, in analyzing the data obtained for potential biases and conflicts of interest, in determining the applicability of the information to the query at hand, and in communicating the information to various potential audiences
2) Demonstrate an understanding of issues of privacy, copyright, plagiarism and other issues germane to the legal and ethical uses of information

2. Applied competencies

b. Design, implement, monitor, evaluate, and adjust pharmaceutical care plans that are patient-specific and evidence based which ensure effective, safe, and economical care

2) Compile and evaluate patient-specific information
4) Select the appropriate dosage form, formulation, administration, and/or delivery system for specific drug
6) Ensure that patients or their agents understand the importance, nature and scope of the therapeutic plans being implemented, are informed about the benefits and risks of such plans, agree to participate in the implementation of the plans, and understand the appropriate use of medication included in the plans
8) Administer medications and immunizations to patients, when appropriate

c. Evaluate drug orders or prescriptions, accurately and safely compound drugs in appropriate dosage forms, package and dispense dosage forms to meet specific patient care needs, and provide proper advice regarding dosage form factors which influence drug stability, drug release, drug absorption and bioavailability

e. Demonstrate the ability to practice within a selected patient care setting within state and federal pharmacy regulations
1) Label and package a selected dosage form according to state and federal laws
2) Provide and document appropriate patient consultation

f. Practice ethically in a patient care setting

1) Evidence personal commitment to the welfare of the patient
2) Demonstrate respect for the dignity of the patient
3) Use awareness of personal values and a code of professional ethics to guide behavior

g. Effectively solve situational dilemmas

1) Identify the ethical principles associated with a given patient care scenario
2) Reason through conflicts between personal values and professional ethics to assure optimal patient care
3) Justify a decision made in a patient care setting

h. Maintain professional competence by identifying and analyzing emerging issues, products, and services that may impact patient-specific therapeutic outcomes

1) Maintain a zeal for and practice of lifelong professional learning.
2) Access Continuing Education vehicles such as seminars, online training, etc.
3) Utilize current awareness tools, such as journal and database alerting services
4) Subscribe to professional journals
5) Maintain an up-to-date personal professional library

II. SYSTEMS MANAGEMENT. 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, provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution, and to improve therapeutic outcomes of medication use

A. Manage human, physical, medical, informational, and technological resources

1. Foundational learning outcomes

   a. Identify legal responsibilities of the pharmacist and other pharmacy personnel
   b. Identify legal requirements for acquisition, distribution, and prescribing of pharmaceutical products
   c. Identify procedures necessary for proper dispensing or distribution of prescription and nonprescription pharmaceutical products, including controlled substances
   d. Identify record-keeping requirements related to pharmaceutical products, including requirements for protecting patient confidentiality

   2. Applied competencies

   c. Maintain a staff of persons capable of fulfilling the practice mission
   g. Identify actual and potential personnel, technological, financial, or regulatory changes that may impact the practice of pharmacy

B. Manage medication use systems

1. Foundational learning outcomes

   a. Identify the authority, responsibilities, and operation of the governmental and nongovernmental agencies and entities that establish and enforce standards that regulate or affect the manufacture, storage, distribution, and dispensing of pharmaceutical products
2. **Applied competencies**

a. Manage the drug distribution system
   
   3) Manage systems for storage, preparation, and dispensing of medicines
   4) Supervise technical personnel involved in the storage, preparation, and dispensing of medicines

b. Assure the quality of drug products

   4) Apply guidelines and standards of practice for preparation, storage, in-process quality control, and administration of sterile dosage forms and enteral nutrition products

e. Assess and improve medication use quality

   1) Identify medication errors and adverse drug reactions and report them to appropriate individuals and organizations
   2) Manage the incidence of medication errors and adverse drug reactions
   3) Document quality assurance and improvement activities according to the specifications of relevant accrediting and regulatory bodies
   5) Participate in and perform drug use evaluations
APPENDIX B - APPE Mid-Rotation Evaluation of Student (Rev. May 2015)

APPE MID-ROTATION EVALUATION
PRECEPTOR’S EVALUATION OF THE STUDENT
P-4 ADVANCED PHARMACY PRACTICE EXPERIENCE

Student Name: 
Preceptor Name: 
Rotation Site: 
Start Date: 
Mid-rotation Evaluation Date: 

Instructions:
In order to provide a consistent evaluation process and valuable feedback to students regarding their professional development, please assess the student's performance in each category (when applicable to this rotation) based upon the skills and knowledge demonstrated throughout the rotation. Please use the evaluation chart below to assess the students’ performance in each category. Clearly indicate your assessment by checking the corresponding points for each category.

The student is required to complete a self-assessment at mid-rotation and at the end of the rotation.

The preceptor must complete an evaluation of the student at the end of the rotation and interact with the student in discussion as it relates to performance.

While some students may initially require substantial redirection and supervision, improvement should become evident through practice with minimal supervision. The preceptor will notify the Director of Experiential Programs in cases where students are not progressing to satisfactory levels and are at significant risk of being unable to successfully complete the rotation. Please contact, Mr. John Ridgway, Director of Experiential Programs at (402) 559-5774 or jridgway@unmc.edu.

The evaluation of the student performance will be utilized by future preceptors and the Office of Experiential Programs for student development during remaining clerkships.

Evaluation Guidelines:
Choose the category that is most representative of the student’s performance

Not Offered: The activity is not offered at this site.

Unsatisfactory: Lacks the skill, knowledge, and/or ability to complete task. Numerous mistakes; inability to problem-solve make corrections. Constant redirection and supervision is required. Lacks confidence in abilities. Student lacks awareness of mistakes made.

Satisfactory Needs Improvement: Has the skill, knowledge and ability but does not utilize it to complete task. Numerous mistakes; has ability to problem-solve but does not make corrections. Somewhat confident in abilities. Student has some awareness of mistakes made.

Satisfactory: Utilizes, skill, knowledge and/or ability to complete task. Occasional mistakes; ability to self correct. Minimal redirection and supervision is required. Consistent performance. Student is confident in abilities. Student can identify and solve problems/issues.

Good: Moderate level of proficiency. Mistakes are minimal; ability to problem solve and utilizes resources often. Minimal supervision is required.

Excellent: High level of proficiency. Mistakes are minimal; ability to problem solve and utilizes resources consistently. Minimal supervision is required.
I. PHARMACY PRACTICE

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<th>S = Satisfactory</th>
<th>G = Good</th>
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<td>2. Integrative Competence/Critical Thinking and Decision-Making Abilities:</td>
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<td>3. Informatics and Evidence-Based Pharmacotherapy:</td>
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N/O = Not Offered
U = Unsatisfactory
SN = Satisfactory Needs Improvement
S = Satisfactory
G = Good
E = Excellent

1. Pharmacy Profession: Demonstrates the activities of the pharmacist appropriate to the practice site. Integrates the role of other pharmacy support personnel in the delivery of pharmacy services and patient care. Identifies and implements necessary changes in pharmacy practice and health care deliver to advance the profession.

2. Integrative Competence/Critical Thinking and Decision-Making Abilities: Examines issues rationally and logically. Evaluates, analyzes and synthesizes information and knowledge based upon sound physical, chemical, biological, and therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social, economic, and professional issues, emerging technologies, and evolving biomedical, sociobehavioral, and clinical sciences that may impact therapeutic outcomes.

3. Informatics and Evidence-Based Pharmacotherapy: Examines, analyzes, and synthesizes information. Manages knowledge to mitigate error(s) and support decision-making using appropriate information and technology.

4. Oral Communication: Listens, assesses health literacy, and uses effective oral communication skills to clearly communicate relevant, concise, comprehensive and timely information about safe and appropriate medication use to patients, health care professionals, and members of the community using appropriate terminology and vocabulary for the intended audience.

5. Written Communication: Listens, assesses health literacy, and uses effective written communication skills to clearly communicate relevant, concise, comprehensive and timely information about safe and appropriate medication use to patients, health care professionals, and members of the community using appropriate terminology and vocabulary for the intended audience.

6. Interactions with Health Professionals: Interacts actively and effectively with other health professionals. Respects other health professionals' contribution to patient care.

7. Self-Directed Learning Abilities: Assesses his/her own knowledge, sets appropriate learning goals and takes appropriate action to accomplish these goals.

8. Social Awareness and Responsibility: Takes responsibility for adapting and providing quality patient care to culturally, economically, and socially diverse populations. Promotes public health and minimizes health care disparities. Applies population-specific data, informatics, and research processes to identify and solve public health problems and help develop health policy as appropriate to the practice site.

9. Health Promotion: Counsels individuals and/or groups on health lifestyles for disease prevention, wellness, health promotion and public health issues.
II. PATIENT CENTERED PHARMACY PRACTICE

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<th>Task</th>
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<tr>
<td><strong>10. Disease State Knowledge</strong></td>
<td>Explains pathophysiology and clinical presentation of disease state(s).</td>
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<td><strong>11. Clinical Pharmacology</strong></td>
<td>Explains mechanism of action, pharmacokinetics, adverse effects, drug interactions, and clinical use of drugs.</td>
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<td><strong>12. Patient Information</strong></td>
<td>Obtains all necessary and pertinent information from patient/family/caregiver interviews, patient medical records, medication profiles, patient labs, physical assessment findings, diagnostic tests, and/or other health care providers.</td>
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<td><strong>13. Patient Pharmacotherapy Assessment</strong></td>
<td>Assesses the appropriateness of the patient's drug therapy, determines therapeutic endpoints and explains drug therapy including assessment of all medications, evidence-based literature and standards of treatment.</td>
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<td><strong>14. Pharmacy Care Plan</strong></td>
<td>Formulates and recommends appropriate pharmacy care plans, uses information about patient's medical and socio-behavioral needs, preferences and economic status to encourage medication adherence and optimize patient's health outcomes. Determines the goals of therapy, states appropriate efficacy and toxicity monitoring parameters, and identifies and completes appropriate follow-up. Recommendations are reasonable and consider potential consequences of recommendations.</td>
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<td><strong>15. Patient/Caregiver Communication</strong></td>
<td>Able to choose, apply and integrate the effective mode(s) of communication verbal, nonverbal, and/or written) to provide education and counseling on prescription and OTC medication in a caring manner. Verifies understanding and follows HIPAA guidelines.</td>
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III. MEDICATION DISTRIBUTION AND CONTROL SYSTEMS

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<th>Task</th>
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<tr>
<td><strong>16. Prescription Verification</strong></td>
<td>Accurately interprets and transcribes verbal and written prescription orders and assures the appropriateness of the prescription order. Assists patient in problems related to prescription medication coverage.</td>
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<td><strong>17. Dispensing</strong></td>
<td>Safely dispenses medications while applying professional standards and legal guidelines. Administer medications when appropriate and upon adequate training.</td>
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<td><strong>18. Acquisition</strong></td>
<td>Uses and evaluates drug acquisition, inventory control and time-sensitive medication distribution systems and related technology, while documenting and maintaining quality.</td>
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### IV. PROFESSIONALISM, ETHICS & RESPONSIBILITY

<table>
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<th>19. Management:</th>
<th>Describes principles of personnel, financial and marketing management to medication distribution and control systems in pharmacy practice.</th>
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<th>20. Pharmaceutical Product Knowledge:</th>
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<th>21. Appropriate Medication Use:</th>
<th>Performs activities that improve the safety and quality of the medication use process by preventing, reporting, and managing medication errors and adverse events. Understands and adheres to safety design principles in the health care system.</th>
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</table>

| 22. Demonstrate motivation, initiative, and active participation in the rotation (actively participates in answering drug information questions and offering to assist with problem-solving patient issues) |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| MID-ROTATION:                   | ☐ N/O ☐ U ☐ SN ☐ S ☐ G ☐ E                                                                                                       |

| 23. Maintain a consistent, positive attitude and behavior even in stressful situations. Appropriate interactions. Accept constructive criticism and feedback to improve skills. |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| MID-ROTATION:                   | ☐ N/O ☐ U ☐ SN ☐ S ☐ G ☐ E                                                                                                       |

<table>
<thead>
<tr>
<th>24. Demonstrate accountability and responsibility.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MID-ROTATION:</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>25. Demonstrate punctuality.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MID-ROTATION:</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>26. Display honesty, integrity and trustworthiness.</th>
</tr>
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<td>MID-ROTATION:</td>
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</table>

<table>
<thead>
<tr>
<th>27. Evaluate ethical dilemmas</th>
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| 28. Maintain confidentiality of all patient & health organization related information. |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| MID-ROTATION:                          | ☐ N/O ☐ U ☐ SN ☐ S ☐ G ☐ E                                                                                                       |

<table>
<thead>
<tr>
<th>29. Demonstrate effective time management skills.</th>
</tr>
</thead>
<tbody>
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<td>MID-ROTATION:</td>
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</table>

<table>
<thead>
<tr>
<th>30. Appearance, attire, and personal hygiene are professional.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MID-ROTATION:</td>
</tr>
</tbody>
</table>
OVERALL PERFORMANCE COMMENTS FOR MID-ROTATION

Describe the student’s strengths:

Describe areas that need improvement:

GRADING METHODS:

Mid-rotation grading for this APPE is Passing or Failing:

**Passing** = Student is meeting or exceeding expectations

**Failing** = Student is not meeting expectations

The preceptor will notify the Director of Experiential Programs in cases where students are not progressing to satisfactory levels and are at significant risk of being unable to successfully complete the rotation. Please contact, Mr. John Ridgway, Director of Experiential Programs at (402) 559-5774 or jridgway@unmc.edu.

MID-ROTATION EVALUATION GRADE RECOMMENDATION

☐ Passing

☐ Failing
**APPE FINAL EVALUATION**

**PRECEPTOR'S EVALUATION OF THE STUDENT**

**P-4 ADVANCED PHARMACY PRACTICE EXPERIENCE**

<table>
<thead>
<tr>
<th>Student Name:</th>
<th>Preceptor Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Rotation Site:</th>
<th>Start Date:</th>
<th>Final Evaluation Date:</th>
</tr>
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<tbody>
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<td></td>
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</tbody>
</table>

**Instructions:**

In order to provide a consistent evaluation process and valuable feedback to students regarding their professional development, please assess the student's performance in each category (when applicable to this rotation) based upon the skills and knowledge demonstrated throughout the rotation. Please use the evaluation chart below to assess the students’ performance in each category. Clearly indicate your assessment by checking the corresponding points for each category.

The student is required to complete a self-assessment at mid-rotation and at the end of the rotation.

The preceptor must complete an evaluation of the student at the end of the rotation and interact with the student in discussion as it relates to performance.

While some students may initially require substantial redirection and supervision, improvement should become evident through practice with minimal supervision. The preceptor will notify the Director of Experiential Programs in cases where students are not progressing to satisfactory levels and are at significant risk of being unable to successfully complete the rotation. Please contact, Mr. John Ridgway, Director of Experiential Programs at (402) 559-5774 or jridgway@unmc.edu.

The evaluation of the student performance will be utilized by future preceptors and the Office of Experiential Programs for student development during remaining clerkships.

**Evaluation Guidelines:**

**Choose the category that is most representative of the student’s performance**

- **Not Offered:** The activity is not offered at this site.

- **Unsatisfactory:** Lacks the skill, knowledge, and/or ability to complete task. Numerous mistakes; inability to problem-solve make corrections. Constant redirection and supervision is required. Lacks confidence in abilities. Student lacks awareness of mistakes made.

- **Satisfactory Needs Improvement:** Has the skill, knowledge, and ability but does not utilize it to complete task. Numerous mistakes; has ability to problem-solve but does not make corrections. Somewhat confident in abilities. Student has some awareness of mistakes made.

- **Satisfactory:** Utilizes, skill, knowledge and/or ability to complete task. Occasional mistakes; ability to self correct. Minimal redirection and supervision is required. Consistent performance. Student is confident in abilities. Student can identify and solve problems/issues.

- **Good:** Moderate level of proficiency. Mistakes are minimal; ability to problem solve and utilizes resources often. Minimal supervision is required.

- **Excellent:** High level of proficiency. Mistakes are minimal; ability to problem solve and utilizes resources consistently. Minimal supervision is required.
## I. PHARMACY PRACTICE

<table>
<thead>
<tr>
<th>N/O = Not Offered</th>
<th>U = Unsatisfactory</th>
<th>SN = Satisfactory Needs Improvement</th>
<th>S = Satisfactory</th>
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<th>E = Excellent</th>
</tr>
</thead>
</table>

1. **Pharmacy Profession**: Demonstrates the activities of the pharmacist appropriate to the practice site. Integrates the role of other pharmacy support personnel in the delivery of pharmacy services and patient care. Identifies and implements necessary changes in pharmacy practice and health care delivery to advance the profession.

   FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

2. **Integrative Competence/Critical Thinking and Decision-Making Abilities**: Examines issues rationally and logically. Evaluates, analyzes, and synthesizes information and knowledge based upon sound physical, chemical, biological, and therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social, economic, and professional issues, emerging technologies, and evolving biomedical, sociobehavioral, and clinical sciences that may impact therapeutic outcomes.

   FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

3. **Informatics and Evidence-Based Pharmacotherapy**: Evaluates, analyzes, and synthesizes information. Manages knowledge to mitigate error(s) and support decision-making using appropriate information and technology.

   FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

4. **Oral Communication**: Listens, assesses health literacy, and uses effective oral communication skills to clearly communicate relevant, concise, comprehensive and timely information about safe and appropriate medication use to patients, health care professionals, and members of the community using appropriate terminology and vocabulary for the intended audience.

   FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

5. **Written Communication**: Listens, assesses health literacy, and uses effective written communication skills to clearly communicate relevant, concise, comprehensive and timely information about safe and appropriate medication use to patients, health care professionals, and members of the community using appropriate terminology and vocabulary for the intended audience.

   FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

6. **Interactions with Health Professionals**: Interacts actively and effectively with other health professionals. Respects other health professionals' contribution to patient care.

   FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

7. **Self-Directed Learning Abilities**: Assesses his/her own knowledge, sets appropriate learning goals and takes appropriate action to accomplish these goals.

   FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

8. **Social Awareness and Responsibility**: Takes responsibility for adapting and providing quality patient care to culturally, economically, and socially diverse populations. Promotes public health and minimizes health care disparities. Applies population-specific data, informatics, and research processes to identify and solve public health problems and help develop health policy as appropriate to the practice site.

   FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

9. **Health Promotion**: Counsels individuals and/or groups on health lifestyles for disease prevention, wellness, health promotion and public health issues.

   FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E
### II. PATIENT CENTERED PHARMACY PRACTICE

<table>
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<tbody>
<tr>
<td><strong>10. Disease State Knowledge:</strong> Explains pathophysiology and clinical presentation of disease state(s).</td>
<td>○</td>
<td>N/O</td>
<td>○</td>
<td>U</td>
<td>○</td>
<td>SN</td>
</tr>
<tr>
<td><strong>11. Clinical Pharmacology:</strong> Explains mechanism of action, pharmacokinetics, adverse effects, drug interactions, and clinical use of drugs.</td>
<td>○</td>
<td>N/O</td>
<td>○</td>
<td>U</td>
<td>○</td>
<td>SN</td>
</tr>
<tr>
<td><strong>12. Patient Information:</strong> Obtains all necessary and pertinent information from patient/family/caregiver interviews, patient medical records, medication profiles, patient labs, physical assessment findings, diagnostic tests, and/or other health care providers.</td>
<td>○</td>
<td>N/O</td>
<td>○</td>
<td>U</td>
<td>○</td>
<td>SN</td>
</tr>
<tr>
<td><strong>13. Patient Pharmacotherapy Assessment:</strong> Assesses the appropriateness of the patient's drug therapy, determines therapeutic endpoints and explains drug therapy including assessment of all medications, evidence-based literature and standards of treatment.</td>
<td>○</td>
<td>N/O</td>
<td>○</td>
<td>U</td>
<td>○</td>
<td>SN</td>
</tr>
<tr>
<td><strong>14. Pharmacy Care Plan:</strong> Formulates and recommends appropriate pharmacy care plans, uses information about patient's medical and socio-behavioral needs, preferences and economic status to encourage medication adherence and optimize patient's health outcomes. Determines the goals of therapy, states appropriate efficacy and toxicity monitoring parameters, and identifies and completes appropriate follow-up. Recommendations are reasonable and consider potential consequences of recommendations.</td>
<td>○</td>
<td>N/O</td>
<td>○</td>
<td>U</td>
<td>○</td>
<td>SN</td>
</tr>
<tr>
<td><strong>15. Patient/Caregiver Communication:</strong> Able to choose, apply and integrate the effective mode(s) of communication (verbal, nonverbal, and/or written) to provide education and counseling on prescription and OTC medication in a caring manner. Verifies understanding and follows HIPAA guidelines.</td>
<td>○</td>
<td>N/O</td>
<td>○</td>
<td>U</td>
<td>○</td>
<td>SN</td>
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### III. MEDICATION DISTRIBUTION AND CONTROL SYSTEMS

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<tr>
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<tr>
<td><strong>16. Prescription Verification:</strong> Accurately interprets and transcribes verbal and written prescription orders and assures the appropriateness of the prescription order. Assists patient in problems related to prescription medication coverage.</td>
<td>○</td>
<td>N/O</td>
<td>○</td>
<td>U</td>
<td>○</td>
<td>SN</td>
</tr>
<tr>
<td><strong>17. Dispensing:</strong> Safely dispenses medications while applying professional standards and legal guidelines. Administer medications when appropriate and upon adequate training.</td>
<td>○</td>
<td>N/O</td>
<td>○</td>
<td>U</td>
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<td><strong>18. Acquisition:</strong> Uses and evaluates drug acquisition, inventory control and time-sensitive medication distribution systems and related technology, while documenting and maintaining quality.</td>
<td>○</td>
<td>N/O</td>
<td>○</td>
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19. Management: Describes principles of personnel, financial and marketing management to medication distribution and control systems in pharmacy practice.

FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

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FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

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FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

IV. PROFESSIONALISM, ETHICS & RESPONSIBILITY

22. Demonstrate motivation, initiative, and active participation in the rotation (actively participates in answering drug information questions and offering to assist with problem-solving patient issues).

FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

23. Maintain a consistent, positive attitude and behavior even in stressful situations. Appropriate interactions. Accept constructive criticism and feedback to improve skills.

FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

24. Demonstrate accountability and responsibility.

FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

25. Demonstrate punctuality.

FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

26. Display honesty, integrity and trustworthiness.

FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

27. Evaluate ethical dilemmas.

FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

28. Maintain confidentiality of all patient & health organization related information.

FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

29. Demonstrate effective time management skills.

FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E

30. Appearance, attire, and personal hygiene are professional.

FINAL: ○ N/O ○ U ○ SN ○ S ○ G ○ E
OVERALL FINAL PERFORMANCE COMMENTS

Describe the student's strengths:

Describe areas that need improvement:

GRADING METHODS:

Grading for this APPE is Pass/Fail/Honors:
PASS = Student meets or exceeds expectations
FAIL = Student does not meet expectations
PASS WITH HONORS

Completion of the following questions are REQUIRED for the student to be considered for Honors:
1. How did this student exceed your expectations?
2. Please give one or more examples of exceptional work performed by this student.

Pass with Honors is a grade assigned by a review committee within the Office of Experiential Programs (OEP) to not more than 20% of students completing an APPE rotation of a respective category in a given semester. The OEP review utilizes the preceptor assessment forms and written justification of the honors recommendation. Pass with honors recommendations by preceptors should not be discussed with students at the time of the final rotation grading meeting; the student should only be instructed that they have passed or failed the rotation.

The preceptor will notify the Director of Experiential Programs in cases where students are not progressing to satisfactory levels and are at significant risk of being unable to successfully complete the rotation. Please contact, Mr. John Ridgway, Director of Experiential Programs at (402) 559-5774 or jridgway@unmc.edu.

Submission of this evaluation affirms that the student completed the required minimum of 160 hours of APPE for a 4 week rotation.

FINAL EVALUATION GRADE RECOMMENDATION

Fail = Unsatisfactory (must justify on next page)
Pass = Satisfactory
Pass with Honors Recommendation (must justify on next page)
Appendix B - APPE Final Evaluation of Student (Rev. May 2015)

**Justification for FAIL (required if FAIL is recommended as final grade):**

If you recommend a grade of fail, explain reason for this grade.

**Honors Justification (required if Pass with Honors is recommended as final grade):**

1. How did this student exceed your expectations?

2. Please give one or more examples of exceptional work performed by this student: