New Course Form

https://myuk.uky.edu/sap/bc/soap/rfc?services=

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Attachments:

<table>
<thead>
<tr>
<th>ID</th>
<th>Attachment</th>
</tr>
</thead>
<tbody>
<tr>
<td>5327</td>
<td>PaCE 4 Syllabus Final.docx</td>
</tr>
<tr>
<td>5326</td>
<td>Appendix PaCE 4 Competency Objectives.pdf</td>
</tr>
</tbody>
</table>

ID Attachment

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(*denotes required fields)

1. General Information

   a. * Submitted by the College of: PHARMACY

   b. * Department/Division: Pharmacy

   c. * Contact Person Name: Frank Romanelli

   d. * Requested Effective Date: Semester following approval OR Specific Term/Year Fall 2018

   e. Should this course be a UK Core Course?  Yes No

      If YES, check the areas that apply:

      - Inquiry - Arts & Creativity
      - Composition & Communications - II
      - Inquiry - Humanities
      - Quantitative Foundations
      - Inquiry - Nat/Math/Phys Sci
      - Statistical Inferential Reasoning
      - Inquiry - Social Sciences
      - U.S. Citizenship, Community, Diversity
      - Composition & Communications - I
      - Global Dynamics

2. Designation and Description of Proposed Course.

   a. * Will this course also be offered through Distance Learning?  Yes No

   b. * Prefix and Number: PHR 940

   c. * Full Title: Patient-centered Care Experience 4

   d. Transcript Title (if full title is more than 40 characters): PaCE 4

   e. To be Cross-Listed with (Prefix and Number):

   f. * Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours for each meeting:

      | Lecture | 32 | Laboratory | 1 |
      |---------|----|------------|---|
      | Indep. Study |    | Clinical   |   |
      | Research |    | Colloquium |   |
      | Other    |    | Seminar    |   |
      |          |    |            | 30|

   g. * Identify a grading system:

      - Letter (A, B, C, etc.)
      - Pass/Fail
      - Medicine Numeric Grade (Non-medical students will receive a letter grade)
      - Graduate School Grade Scale
h. * Number of credits:  3

i. * Is this course repeatable for additional credit?  ☐ Yes ☐ No
   If YES: Maximum number of credit hours: _______________________
   If YES: Will this course allow multiple registrations during the same semester?  ☐ Yes ☐ No

j. * Course Description for Bulletin:
   This is the fourth course in the six-semester Patient-centered Care Experience (PaCE) course sequence of the pre-APPE curriculum. The PaCE course structure integrates FY1, FY2 and FY3 students into concurrent laboratory sessions and intermittent complementary experiential education experiences. The course is assist in developing the knowledge, skills, and attitudes needed to fulfill the professional and technical responsibilities necessary to provide patient-centered care and manage the medication use system.

k. Prerequisites, if any:
   Prerequisite: PaCE 3 (PHR 930)
   Co-requisites: PHR 946, PHR 947, PHR 948
   The experiential component requires the student to be registered with the Kentucky Board of Pharmacy internship.

l. Supplementary teaching component, if any:  ☐ Community-Based Experience  ☐ Service Learning  ☐ Both

3. * Will this course be taught off campus?  ☐ Yes ☐ No
   If YES, enter the off campus address: ____________________________
   The experiential portion may be in a clinical setting off campus, as assigned to preceptors

4. Frequency of Course Offering:
   a. * Course will be offered (check all that apply):  ☐ Fall  ☐ Spring  ☐ Summer  ☐ Winter
   b. * Will the course be offered every year?  ☐ Yes ☐ No
      If No, explain:

5. * Are facilities and personnel necessary for the proposed new course available?  ☐ Yes ☐ No
   If No, explain:

6. * What enrollment (per section per semester) may reasonably be expected?  1-40

7. Anticipated Student Demand:
   a. * Will this course serve students primarily within the degree program?  ☐ Yes ☐ No
   b. * Will it be of interest to a significant number of students outside the degree prog?  ☐ Yes ☐ No
      If YES, explain:

8. * Check the category most applicable to this course:  
   ☐ Traditional – Offered in Corresponding Departments at Universities Elsewhere
   ☐ Relatively New – Now Being Widely Established
   ☐ Not Yet Found in Many (or Any) Other Universities

9. Course Relationship to Program(s):
   a. * Is this course part of a proposed new program?  ☐ Yes ☐ No
      If YES, name the proposed new program:
   b. * Will this course be a new requirement for ANY program?  ☐ Yes ☐ No
If YES ☐, list affected programs:

10. Information to be Placed on Syllabus.
   a. * Is the course 400G or 500? ☐ Yes ☑ No
      If YES, the differentiation for undergraduate and graduate students must be included in the information required in 10.b. You must i additional assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate stud
   b. ☑ * The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differe

10.a above) are attached.

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[1] Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.
[3] In general, undergraduate courses are developed on the principle that one semester hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. Labor at least two hours per week for a semester for one credit hour. (from SR 5.2.1)
[4] You must also submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.
[5] In order to change a program, a program change form must be submitted.

Rev 8/09

Submit for Approval  Save Draft
Course Coordinator: Mikael Jones, PharmD, BCPS; Anne Policastri, PharmD, MBA

Office Address: Biological Pharmaceutical Complex
Email: Mikael.Jones@uky.edu; apoli2@email.uky.edu
Office Hours: Email for appointment
Course Instructors: Dr. TBD (@uky.edu)
Dr. TBD (@uky.edu)

Course Description/Goal(s):
This is the fourth course in the six-semester Patient-Centered Care Experience (PaCE) course sequence that is part of the pre-APPE curriculum. The PaCE course structure integrates PY1, PY2, and PY3 students into concurrent weekly laboratory sessions and intermittent complementary experiential education experiences. The course is designed to assist in developing the knowledge, skills, and attitudes needed to fulfill the professional and technical responsibilities necessary to provide patient-centered care and manage the medication use system. LINK TO BULLETIN (to find info): http://www.uky.edu/registrar/content/2014-15-course-descriptions

Prerequisites/Co-requisite for PaCE 4:
Prerequisite: PaCE 3 (PHR 930) Co-requisite: PHR 946 PHR 947; PHR 948
The experiential component requires the student to be registered with the Kentucky Board of Pharmacy as a Pharmacy Intern.

Student Learning Outcomes:
Over the 6 semesters of the PaCE course sequence, students will achieve competency within the following 8 Specific Learning Outcomes (SLOs) mapped to the Center for the Advancement of Pharmaceutical Education (CAPE) 2013 outcomes. Each SLO has a series of objectives that a student will master over the six-semester course sequence. At the completion of the PaCE sequence students will achieve the following Specific Learning Outcomes:
1. Collect, record, and assess subjective and objective patient data. (CAPE 2.1, 2.3)
2. Identify, assess, prioritize, and resolve medication-related problems. (2.1, 2.3, 2.4)
3. Demonstrate a commitment to patient safety by accurately dispensing medications. (CAPE 2.2)
4. Perform accurate pharmaceutical calculations. (1.1, 2.2)
5. Demonstrate effective verbal, nonverbal, and written communication skills for patients, caregivers, healthcare providers, and the general public. (3.6, 4.1)
6. Counsel patients and/or caregivers on health and medication information with specific considerations to patient-centered needs. (3.5, 3.6, 4.4)
7. Participate in activities that promote health, wellness, and preventive care. (2.3, 2.4)
8. Assist patients in accessing medications or health-related equipment/products. (2.2)

**Peer Teams:**

Students will be divided into teams consisting of one PY1, one PY2, and one PY3 student. The goal of these teams is to aid in the development of students by initially providing peer support during the PY1 and PY2 year and providing an opportunity for PY3 students to supervise and educate less senior students. **Note:** For the initial roll out of the new curriculum, peer teams will be constructed as follows:

- Academic Year 2017-2018 teams will be formed with PY1 & PY2 students
- Academic Year 2018-2019 teams will be formed with PY1, PY2, and PY3 students

**Patient Care Lab Content & Schedules:**

**Course Meeting Pattern and Location:**

Students will be assigned to follow Content Schedule “A” or “B”

<table>
<thead>
<tr>
<th>Schedule A</th>
<th>Schedule B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Orientation</td>
</tr>
<tr>
<td>Week 2</td>
<td>Am Care 4</td>
</tr>
<tr>
<td>Week 3</td>
<td>Am Care 4</td>
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<tr>
<td>Week 4</td>
<td>Am Care 4</td>
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<tr>
<td>Week 5</td>
<td>Am Care 4</td>
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<tr>
<td>Week 6 Patient Care Workshops 4</td>
<td>Am Care 4</td>
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<tr>
<td>Week 7 Patient Care Workshops 4</td>
<td>Am Care 4</td>
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<tr>
<td>Week 8 Patient Care Workshops 4</td>
<td>Am Care 4</td>
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<tr>
<td>Week 9 Patient Care Workshops 4</td>
<td>Am Care 4</td>
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<tr>
<td>Week 10 Institutional 4</td>
<td>Patient Care Workshops 4</td>
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<tr>
<td>Week 11 Institutional 4</td>
<td>Patient Care Workshops 4</td>
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<tr>
<td>Week 12 Institutional 4</td>
<td>Patient Care Workshops 4</td>
</tr>
<tr>
<td>Week 13 Institutional 4</td>
<td>Patient Care Workshops 4</td>
</tr>
<tr>
<td>Week 14 Remediation and/or Extra Practice</td>
<td>Remediation and/or Extra Practice</td>
</tr>
<tr>
<td>Week 15 Remediation and/or Extra Practice</td>
<td>Remediation and/or Extra Practice</td>
</tr>
<tr>
<td>Week 16 OSCE</td>
<td>OSCE</td>
</tr>
</tbody>
</table>

*See Appendix for competency objectives for each module.*
Weekly Laboratory Sessions:

*Note: This schedule is for Spring 2018*

Students will be assigned to 1 of 12 Laboratory Tracks. Tracks 1A-6A follow Schedule A. Tracks 1B-6B follow schedule B. Each laboratory session is 2 hours long.

### Spring 2018 TBA Day 1/TBA Day 2 in BPC 240, 250 and/or 270

<table>
<thead>
<tr>
<th>TBA DAY 1</th>
<th># PY1 PY2 Students</th>
<th>TBA DAY 2</th>
<th># PY1 PY2 Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Track 1A – 8:00 AM – 10:00 AM</td>
<td>11/12</td>
<td>Laboratory Track 4A – 8:00 AM – 10:00 AM</td>
<td>11/12</td>
</tr>
<tr>
<td>Laboratory Track 1B – 8:00 AM – 10:00 AM</td>
<td>11/12</td>
<td>Laboratory Track 4B – 8:00 AM – 10:00 AM</td>
<td>11/12</td>
</tr>
<tr>
<td>Laboratory Track 2A – 10:00 AM – Noon</td>
<td>12/12</td>
<td>Laboratory Track 5A – 10:00 AM – Noon</td>
<td>12/12</td>
</tr>
<tr>
<td>Laboratory Track 2B – 10:00 AM – Noon</td>
<td>12/12</td>
<td>Laboratory Track 5B – 10:00 AM – Noon</td>
<td>12/12</td>
</tr>
<tr>
<td>Laboratory Track 3A – 1:00p -3:00 PM</td>
<td>12/11</td>
<td>Laboratory Track 6A – 1:00p -3:00 PM</td>
<td>12/11</td>
</tr>
<tr>
<td>Laboratory Track 3B – 1:00p -3:00 PM</td>
<td>12/11</td>
<td>Laboratory Track 6B – 1:00p -3:00 PM</td>
<td>12/11</td>
</tr>
</tbody>
</table>

To ensure student success, there will be additional designated “Open Lab Times” to ensure students have adequate time to practice skills to achieve competencies by designated deadlines. “Open Lab Times” will be optional for all students but may be required for specific students who are not making sufficient progress toward achieving competency.

### Summary Description of Course Activities and Assignments:

**Patient Care Laboratory Activities:** These activities are designed to help students achieve the curricular outcomes of the course. Students will progress through activities in a self-directed manner, practicing skills to achieve competency by deadlines. Resources to assist students in gaining the necessary skills and competencies include in-class demonstrations, instructional videos, assigned readings, facilitated small group discussions, and direct access and mentorship by pharmacist instructors. The activities have divided between 3 course-sequence spanning modules: Patient Care Workshops, Institutional Medication Use Systems Management, and Ambulatory Care Medication Use Systems Management.

**Patient Care Workshops:** This module is designed to prepare students to provide direct patient care in a variety of clinical settings. The sequence will utilize workshops with standardized patients to develop communication, patient assessment, and clinical reasoning skills. Module activities will be centered on patient communication, patient assessment (physical exam and laboratory interpretation), clinical planning, and clinical documentation for ambulatory and community settings.

**Institutional Medication Use Systems Management:** This module is designed to prepare students
to manage patient healthcare needs within an institutional medication use system. As students advance through the 6-course sequence they will progress to a supervisory role and have greater responsibility for patient outcomes. Module activities will be centered on medication order fulfillment, health care provider communication, sterile compounding, and pharmaceutical calculations.

**Ambulatory Care Medication Use Systems Management:** This module is designed to prepare students to manage patient healthcare needs within a community/ambulatory medication use system. As students advance through the 6-course sequence they will progress to a supervisory role and have greater responsibility for patient outcomes. Module activities will be centered on medication order fulfillment, patient counseling, non-sterile compounding, and pharmaceutical calculations.

**PaCE Experiential Coursework**
During the PaCE course sequence, students will complete at least 160 introductory experiential hours. PaCE 4 provides a minimum of 30 hours. Experiential activities are designed to allow students to observe and practice the application of knowledge, skills, and attitudes in pharmacies under the direction of a preceptor. The experiential coursework shall be completed at the pharmacy site and assessed by the preceptor or his/her designee for competency. Each semester, students will participate in concurrent, complimentary experiential coursework in the community and institutional pharmacy settings.

**PaCE 4 requirements:**
- Experiential Orientation
- Minimum 15 experiential hours in Community Pharmacy Setting
- Minimum 15 experiential hours in Institutional Pharmacy Setting
- Participation in Service Learning Event
- Participation in Debriefing Activity

Students must complete the minimum number of experiential hours, and satisfactorily complete their experiential assignments by the 15th week of the semester. Failure to complete these requirements will result in a failing course grade. It is the student pharmacist’s responsibility to ensure that the activities are completed by deadlines.

**Experiential Practice Site:**
Designated practice sites will generally be within approximately 1 hour’s driving time from the College of Pharmacy.

**Preceptor Assignment:**
Each semester, students will be assigned two preceptors—one ambulatory pharmacy and one institutional pharmacy preceptor. Students will contact their assigned preceptors to schedule their PaCE experiences for the semester at mutually agreeable times for the preceptor and the student. Students must complete a minimum of 15 hours at each site. However, to achieve competency (see appendix) additional hours may be required. The hours must be divided over a specified number of days. However, the days do not have to be consecutive.
Service Learning Events:
Service Learning Events are an opportunity for pharmacy students to engage the public in improving health awareness and promote preventative health strategies. Service Learning is more than participating in a health-related community service activity. Students will also engage in careful preparation, purposeful reflection, and engaged discussion with fellow students and faculty members about the Service Learning Event.

Debriefing:
Students will participate in scheduled debriefings for collaborative learning experiences related to their activities at their assigned rotation sites. These hours do not count towards internship hours but are required as part of the student’s experiential coursework.

Longitudinal Skills:
During the course of PaCE I-VI, students will need to complete a required minimum number of clinical activities common to each practice setting. Students will be required to log these activities as they occur. Examples of clinical activities are counseling patients on select drugs classes, providing renal dosing recommendations, initiating formulary interventions, answering drug information questions and prescription/order clarifications. Progress goals will be set for each semester and must be satisfactorily achieved to pass the course.

Overview of PaCE 4 Experiential Assignments (Tentative)
- Community Patient Care assignment
- Community Medication Use System Management assignment
- Institutional Patient Care assignment
- Institutional Medication Use System Management assignment
- Longitudinal Skills (e.g. counseling, DI requests, prescription order clarifications)
- Wellness Screening Service Learning Activity

Required Materials:
The following texts will be used repeatedly over the six semesters of the PaCE sequence and may be used in other courses. These texts should be retained and kept current through the six semesters.

1. Remington: The Science and Practice of Pharmacy; Gennaro, 21st ed. (Provided Online)
2. Pharmaceutical Calculations; Agarwal 1st ed.
3. Kentucky Pharmacy Law Book, Kentucky Board of Pharmacy. (Online-Free Access)
4. Drug Information Handbook; Lacy, Armstrong, Goldman, and Lance, 19th ed. (Online version provide by UKCOP)
6. Basic Skills in Interpreting Laboratory Data, Lee; 5th ed.
7. Fundamental Skills for Patient Care in Pharmacy Practice; Lauster and Srivastava, 1st ed.
8. Stethoscope and blood pressure cuff
10. Patient Assessment in Pharmacy; Boyce et al, 1st ed. 2015
11. Patient Care Management: A Lab Workbook for Prescription Practice; Finkel 2012 3rd ed
**Assessment:**

**Grading Scheme:**

PaCE 4 is a Pass/Fail course. To receive a passing (P) grade in this course, the student must pass all mastery assessments, complete the minimum number of experiential hours, complete all experiential assignments and behave professionally in both the patient care laboratory and experiential practice setting.

*Students are subject to failure of the course and/or removal from the experiential rotation site or patient care laboratory for a violation of professional conduct. See Professional Conduct section below.*

**Failure to complete any portion of the above requirements may result in a failing (E) grade.**

All exam/course related grades and assessment are final 72 hours after posting. Non-circulating graded exams and assignments may be reviewed via Canvas, ExamSoft, video files, or in-lab student files. Circulation of copies of current and old examinations, assessments and course materials is strictly prohibited.

**Exam Schedule/Location/Times:**

**Mastery Assessments** will be completed when the instructor determines the student is prepared or by the designated deadline. If a student fails to pass a mastery assessment, a remedial learning plan must be completed by the student prior to taking a remedial assessment. All mastery assessments MUST be completed and passed by the end of the semester in order for the student to pass the course. The pass score will vary with each type of assessment. The required score for each Mastery Assessment is as follows:

- Knowledge-based assessments ≥80%
- Pharmaceutical Calculations ≥80%
- Performance of a specific skill (e.g. blood pressure assessment, preparation of sterile compound, preparation of non-sterile compound) ≥90%-100%
- Standardized Patient= Achieve “cut score” determined for each case’s checklist. The cut score varies based on the complexity of the case but generally runs ≥70-80% of the checklist items.

All assessments will be taken in accordance with the College of Pharmacy Honor Code and Minimum Examination and Quiz guidelines which can be found at the following address: [http://pharmacy.mc.uky.edu/programs/pharmd/files/COP%20Student%20Handbook.pdf](http://pharmacy.mc.uky.edu/programs/pharmd/files/COP%20Student%20Handbook.pdf). Additionally certain assessments may prohibit the presence of any electronic device with internet or communication capability including, but not limited to cell phones, computers, and tablets.

**Thematic areas for Mastery Assessments:**

1. **Direct Patient Care:** Standardized patients will be used to assist in assessing student knowledge, skills and abilities to provide direct patient care. Example mastery assessments may include patient counseling, medication histories, communicating information to a health care provider, and obtaining/interpreting physical assessment and laboratory data.
2. **Medication Use System Assessment:** Management of distributive responsibilities for both community and institutional pharmacy settings. Example mastery assessments may include evaluation, processing, and dispensing of a medication; preparation/documentation of non-sterile products; preparation/documentation of sterile products.

3. **Pharmaceutical Calculations Competency:** Mastery on assigned pharmaceutical calculation concepts. A list of specific calculation concepts will be provided with each medication use management module.

**Objective Structured Clinical Exam (OSCE):** Students that have passed all mastery assessments for PaCE 4 will take the PaCE 4 OSCE. The OSCE will be a formative assessment to guide future learning in subsequent PaCE coursework. OSCE performance will be used to develop an individual learning plan for the following semester with the goal to maintain competency of the knowledge and skills learned in PaCE 4. The OSCE will be scheduled during finals week. The OSCE is administered sequentially to students groups throughout the day therefore each student will receive a specific appointment time between 8am and 6pm on the day of the OSCE.

The OSCE will be taken in accordance with the College of Pharmacy Honor Code and Minimum Examination and Quiz guidelines which can be found at the following address: [http://pharmacy.mc.uky.edu/programs/pharmd/files/COP%20Student%20Handbook.pdf](http://pharmacy.mc.uky.edu/programs/pharmd/files/COP%20Student%20Handbook.pdf). Additionally certain OSCEs may prohibit the presence of any electronic device with internet or communication capability including, but not limited to cell phones, computers, and tablets.

**Course Policies:**

**Academic Integrity:**
Cheating and plagiarism will not be tolerated and will be prosecuted to the fullest extent of Honor Code and University regulations. All examinations will be taken in accordance with the College of Pharmacy Honor Code which can be found at the following address: [http://pharmacy.mc.uky.edu/programs/pharmd/files/COP%20Student%20Handbook.pdf](http://pharmacy.mc.uky.edu/programs/pharmd/files/COP%20Student%20Handbook.pdf). Each student is directed to the Honor Code and should familiarize themselves with it.

**Attire:**
A dress code will be enforced in the patient care laboratory. Short-length white lab coats and medical center name badges must be worn at all times with the exception of sterile compounding activities which require specific dress as outlined below. Opened-toe shoes are not allowed in the laboratory due to OSHA requirements.

**Patient Care Lab and Experiential Professional Dress:**
- In general, students should dress so that their most conservative classmate, instructor, client or patient would not be offended.

- Students must be neat and clean. Shoulders must be covered. The midriff area of the body or undergarments must not be visible. Shorts and miniskirts should NOT be worn.
• Extremes in hairstyles, cosmetics and jewelry should be avoided. Nose rings, eyebrow rings and visible piercings other than earrings are not permitted while on rotation. Please note: ALL jewelry is prohibited when working in the aseptic compounding area as outlined in individual course syllabi.

• Professional dress is expected, which means business attire – dress pants and dress shirt/sweater for men and dresses or skirts/dress slacks and blouses/sweaters/jackets for women. White lab coats (short length) are required when in the patient care lab, working at experiential site and when participating in patient care activities.

• Foot wear will be clean, safe and appropriate for the individual’s work assignment. Athletic shoes are discouraged, but if they are appropriate under the job description and do not contrast with other aspects of dress and well maintained (clean) (e.g., white shoes with dark slacks), then they may be acceptable in some locations. Open toed shoes (e.g., sandals, flip flops) should not be worn. Generally, closed toe shoes are preferred in most locations.

• Specific dress code policies apply when working in aseptic compounding and should follow the policies of the facility.

• All students must wear the approved identification badge, issued and validated by Medical Center Security at all times when they are in the College or the Medical Center.

Name badges will be worn clipped on the pocket of shirts or jackets, or worn around the neck. Name badges shall NOT be worn at the waist level or in other inappropriate locations.

**Parenteral compounding lab activities in the Patient Care Lab:**
1. Clean scrubs will be worn during lab manipulations of parenteral products. Closed cuff gowns may also be worn over scrubs.
2. No jewelry of any kind, including wedding rings and watches (potential for introduction of bacteria into the work area) may be worn on any visible areas of the body during actual compounding procedures. This also includes earrings, nose rings, eyebrow rings and other visible piercings. You might consider wearing your wedding rings on a chain that can be placed inside your scrubs or using a safety pin to attach rings to an inside pocket on your scrubs.
3. No nail polish – this includes clear polish – may be worn. It is also expected that nails will be kept at a reasonable length.
4. No makeup will be permitted due to the potential for flaking and contamination of sterile products.
5. Hair coverings will be worn during all preparation activities.
6. Masks will be worn during when necessary during manipulations. If you have facial hair, you will be required to wear a mask that covers beard and/or mustache during lab manipulations.
7. Gloves will be worn during all manipulations. Latex-free gloves will be available for those with a latex allergy.

**Participation in Course Activities and Timely Completion of Activities:**
Students must fully participate in all lab and experiential activities. Full participation entails attendance, active preparation, involvement, and completion of assignments. **Failing to fully participate is considered a violation of the Professional Conduct Code and may result in**
failure of the course.

Attendance/Punctuality Policy:

Patient Care Lab Excused Absences: Attendance at all patient care laboratory sessions is mandatory. Your assigned team members will depend on you to complete your assignments and your share of team-based assignments. Please contact the laboratory instructor in charge of the day's activity should such circumstances arise that prevent your attendance. If an absence is excused, students will be expected to attempt to attend one of the other scheduled laboratory sections that week. If such circumstances exist that attendance at another section is not possible, a make-up patient care laboratory session may be scheduled at the discretion of the laboratory instructors. Students may not switch lab sections without approval from a course instructor. Students that switch lab sections without approval will be considered absent from lab.

Punctuality is a must if laboratory activities are to be completed in an efficient manner. Therefore students must arrive on time for laboratory sections. The first tardy will result in a warning. The second and subsequent tardies may be addressed via the professionalism policies outlined below.

The Lab portion of the course PaCE follows the College of Pharmacy Absence and Severe Weather policies found in the student handbook. Additional guidance for absences occurring in the Patient Care laboratory or experiential setting has been outlined below.


Experiential Absences:

General information on Attendance: Over the course of the semester, students must complete the minimum number of experiences at an assigned experiential rotation site. Students are required to be in the pharmacy site or other location specifically designated by the preceptor at assigned times. Student pharmacists should understand that pharmacies may have extended hours and weekend shifts; therefore, assigned hours may include evening work or weekend shifts.

Student pharmacists on rotation experiences must complete required hours for full internship credit with the Board of Pharmacy. Holidays, vacation, or illnesses are not eligible for internship credit or course credit with the College, and student pharmacists are expected to make up any hours due to absence for any reason.

Student pharmacists are expected to notify the preceptor on site as soon as possible for any absence.

Work is not an excuse for missing rotation activities and students are not to schedule work hours that will conflict with their scheduled experiential activities.

Students should make every effort to minimize time away from the rotation site. Illness, weather-related conditions, travel to professional meetings or other unforeseen circumstances may cause a student to miss days at the EE site. Concerns or questions about excused absences may be directed to your preceptor or faculty course coordinator. The preceptor may use discretion in how that time is made up. If time is missed, the preceptor and the student should discuss options for making up
the time. If a mutually acceptable arrangement cannot be determined, the director of experiential education should be contacted. Unexcused absences and Tardiness violate the professional standards of the college and the facility and may lead to dismissal from the rotation site and/or failure of the course.

Severe Weather:
In the event of severe weather in the locale where the student is assigned, the policy adopted by the assigned facility will generally apply. The student should contact the preceptor (if at all possible) or other pharmacist at the rotation site if the preceptor cannot be reached to determine the best and safest course of action as many variables may apply in a given situation. The student should expect to make up any time missed either through scheduled time or special projects.

Verification of Absences: Students may be asked to verify their absences in order for them to be considered excused according to Senate Rules. Appropriate notification should be submitted at least 2 weeks prior to absences due to university-related trips.

Religious Observances:
Students having religious observances that prevent them from doing their work at its scheduled time will be provided an opportunity to make up their lab or coursework. Students should provide the Course Coordinator appropriate notification at least 2 weeks prior to absences due to religious observances.

Patient Confidentiality:
All information concerning patients and patient care is to remain confidential. Students must comply with the Behavioral Standards in Patient Care and the Health Sciences Student Professional Behavior Code of the University Hospital and Chandler Medical Center. These apply to participation in any health care facility unless the standards of the facility exceed the University standards.

   a. Each patient shall be treated as a whole, irreplaceable, unique, and worthy person.
   b. The patient’s safety, health, or welfare shall be protected and shall not be subordinated to organizational, staff, educational, or research interests or to any other end.
   c. The privacy of the patient and the confidentiality of every case and record shall be maintained.
   d. Patients and/or responsible family shall be informed at all stages of care about personnel responsible for the patient’s care, treatment plans, and activities for the patient, facilities, and services available to the patient, and responsibilities of the patient and family.
   e. Behavior reflecting the dignity, responsibility, and service orientation of health care professionals, worthy of the public’s respect and confidence, shall be practiced by all individuals.
   f. Each patient shall have a responsible attending Physician or Dentist.
   g. Students may also be asked to do additional HIPAA training and/or produce verification of the HIPAA training received on campus. A memo is available on the EEP website under “Students” verifying completion of a federally approved Level 1 HIPAA Training Course has occurred on campus.
   h. Please refer to the Behavioral Standards in Patient Care here:
      http://www.mc.uky.edu/learningcenter/Manuals/Behavioral-Standards-In-Patient-Care_2.pdf
   i. Records bearing patient names or other forms of identification are NOT to be removed from
the health care facility or the unit where the patient is located. Policies in force in other institutions must be followed in obtaining medical records.

Policies on Sexual and Racial Harassment:

**Sexual Harassment:**
Considered a form of sexual discrimination, sexual harassment is defined generally in terms of the following unwanted sexual advances, requests for sexual favors, or other verbal or physical actions of a sexual nature. The University of Kentucky expressly forbids the sexual harassment of students, faculty and staff.

**Racial Harassment:**
No individual or identifiable group of person shall, on the basis of race, color or national origin, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination in employment or a University course, program, or activity. Racial harassment is a form of race discrimination that includes: different treatment without a legitimate, nondiscriminatory reason on the basis of race, color, or national origin in the context of employment, participation in a University course, program or activity which interferes with or limits the ability of an individual or identifiable group to participate in or benefit from privileges provided by the University. Creation of a hostile environment on the basis of race, color or national origin that is sufficiently severe, pervasive, or persistent so as to interfere with or limit the ability of an individual or identifiable group to participate in or benefit from privileges provided by the University. The University of Kentucky expressly forbids the racial harassment of students, faculty and staff. More information may be found on the Office of Institutional Equity and Equal Opportunity website: [http://www.uky.edu/EVPFA/EEO/](http://www.uky.edu/EVPFA/EEO/).

**Professional Conduct Policy & Procedure:**
Students must adhere to the Health Care Colleges Code of Student Professional Conduct in both simulated and experiential settings. [http://www.uky.edu/regs/files/HCCcode.pdf](http://www.uky.edu/regs/files/HCCcode.pdf). The following list includes representative, not comprehensive, violations from the Professional Conduct Code that may constitute removal from the experiential site and failure of the course.

At a minimum, health care college students shall not:

- Commit any offenses enumerated under the University of Kentucky Code of Student Conduct to the extent that the violation reflects adversely on the student's professional moral and ethical character;
- Misappropriate or illegally use drugs or other pharmacologically active agents;
- Engage in any behavior that may endanger clients, patients, or the public, including failure to carry out the appropriate or assigned duties, particularly when such failure may endanger the health or well-being of a patient or client, or treatment is dispensed without appropriate faculty supervision;
- Engage in behavior or action that deceives, defrauds, or harms the public or public's perception of the profession;
- Falsify or, through negligence, make incorrect entries or failing to make essential entries in health records;
- Deliberately deceive a patient or client through failure of the Health Care College student to disclose his or her student’s status unequivocally to the patient;
• Fail to maintain client or patient confidentiality including failure to follow HIPAA standards;
• Obtain any fee or compensation by fraud or misrepresentation;
• Engage in any course of conduct, act or mission that would be considered unprofessional conduct as a basis for discipline under the professional standards recognized by the licensing, certifying, or professional association or agency of the health care college student's intended profession for which the health care college student is in training;
• Fail to report a felony conviction

Process:
1. Preceptors who identify areas of unprofessional conduct will contact the Director of Experiential Education.
2. Preceptors will then document the event and provide such documentation to the Director of Experiential Education.
3. The Director of Experiential Education may remove the student pharmacist from the experiential rotation site, and the student pharmacist may be subject to failure of the course.
4. The violation may then be reported to the Associate Dean of Academic and Student Affairs and the Pharmacy Practice and Science Department Chair.
5. Additionally, the violation may be submitted for review of the Dean according to the Health Care Colleges Code of Student Professional Conduct for further review.

Collaborative Work:
For team-based assignments, work should be completed WITHIN assigned teams and should NOT be completed in conjunction with OTHER teams or members of OTHER teams. Working in conjunction with other teams would be categorized as failing to fully participate in an activity. For non-exam/quiz individual assignments, students may work in groups unless noted otherwise on the assignment. However, each student is responsible for ensuring his/her own understanding of the concepts presented in the assignment and each student must turn in his/her own individual work.

Accommodations for Disabilities (Physical, Mental and/or Learning):
Any student seeking accommodations from the University must notify the Director of Student Success and Career Development in the College of Pharmacy of that disability, in writing, preferably before the beginning of the school year, but in no case later than the third day of classes for the semester. If a disability develops during the school year for which accommodations are requested, the student must notify Academic and Student Affairs, in writing, as soon as he/she becomes aware of the disability. The student must also notify the coordinator of each course he/she is enrolled in of his or her anticipated accommodation in the same time frame. The student will be required to provide current documentation of the condition for which they require accommodation to the University Disability Resource Center: http://www.uky.edu/StudentAffairs/DisabilityResourceCenter/ (257-2754) before any accommodations can be instituted.

The Disability Resource Center will base provision of services to accommodate disability upon a review of current medical or psychological document and an assessment of the current needs and
appropriate services. In addition to the student's notification, request for accommodation and documentation will be kept confidential, but will be disclosed in the provision of the accommodation. Students having the same accommodation may be tested together. A student with documentation from previous semesters in the curriculum is not required to have his/her case re-evaluated by the Disability Resource Center. However, he/she must notify the coordinator of each course he/she is enrolled in of his or her accommodation no later than the third day of classes for the fall/spring semester.

**Maintenance of Laboratory Environment:**
Students may not bring ANY food or drink into the patient care laboratory. Students are responsible for returning the lab to its original state after the laboratory section has ended. Trash should be placed in appropriate receptacles and equipment, chairs and computers returned to their original position.

**Cell Phones and Calculators:**
The use of cell phones, tablets, and computers as adjuncts to texts and references is encouraged. However, the use of cell phones and other electronic devices during examinations and other assessments as defined by the course coordinator is prohibited. Inappropriate use of computing devices will result in dismissal from the assessment and no credit for the activity. Students will not be allowed to share calculators during exams or assessments.

**Canvas/ExamSoft Assessments:**
The following conditions have been set for quizzes posted on Canvas or ExamSoft.

- Online/un-proctored quizzes must be completed by established deadlines. If an error occurs during an assessment, immediately email the course instructor. The course instructor will determine if a legitimate error has occurred and will reset the quiz. It may take 1 business day for the assessment to be reset therefore it is advisable not to wait until the last minute to complete the assessment.
- Answers to quizzes will be available in Canvas/ExamSoft immediately following the quiz due date. If there are errors in quiz questions/answers/grading, you may email the course coordinator to request reconsideration for a particular question within 72 HOURS following the quiz due date/time. Requests received after the 72 hours have elapsed will not be regraded.
- Remember that all online quizzes are restricted. Printing a copy of the assessment or exam and/or discussing questions with fellow students constitutes cheating.

**Patient Care Laboratory Policy and Procedure Manual:**
A Patient Care Laboratory policy and procedure manual has been compiled for each of the simulated practice areas in the lab. Students should review the policy and procedure manuals at the beginning of the semester. The policy and procedures in addition to federal and state law will serve as the basis of practice for each of the simulated areas. It is imperative that students follow the policies and procedures to ensure appropriate completion of laboratory activities. The manual will be available through Canvas and lab computers.

**Housekeeping:**
All lecture rooms, exam rooms, work areas, computer stations, and the patient care laboratory will
be left in a clean and orderly manner. Instructors reserve the right to assign clean-up duties should the need arise. No items of food or drink may be brought into the laboratory. Students will not be allowed to bring or store backpacks or other materials not required for laboratory activities into the laboratory.

**Student Images:**
Student images may be viewed or captured (e.g., lecture recording, standardized patient encounter) in the context of the University of Kentucky College of Pharmacy Doctor of Pharmacy program. Each student has signed a release acknowledging this use. You have the permission to record in-class lectures/discussions. However, such lectures/discussions are only permitted to be used for class purposes and not shared or posted. Each student has signed a document agreeing to this policy.

**Drug Information Policy:**
The quality of drug information used for delivering patient care directly impacts the quality of patient care. Therefore it is essential for students to recognize and utilize appropriate drug information resources. Understanding available resources will eventually allow students to develop a systematic approach to answering drug information questions and making therapeutic recommendations. In an effort to improve student utilization of professionally recognized appropriate primary, secondary, and tertiary literature, “alternative” resources will not be allowed in the course of completing laboratory activities.

Examples of **Banned Drug Information Resources** include (but are not limited to):

1. [www.drugs.com](http://www.drugs.com)
2. [www.rxlist.com](http://www.rxlist.com)
3. [www.wikipedia.org](http://www.wikipedia.org)
4. [www.druginformationonline.com](http://www.druginformationonline.com)
5. Class notes (The source of data presented in notes can be used, assuming the student has directly reviewed the source data)
6. Resources for consumers or lay public (unless activity instructs the student to utilize these materials)
7. Any other material that does NOT meet the following standards:
   - Qualified authors/editors/peer reviewers
   - Information is appropriate and evidenced-based
   - Potential bias noted or lack of bias could not be reasonably concluded

During the semester course instructors will direct students to a variety of quality drug information resources that may be used while completing lab activities. It is each student’s responsibility to use the methods learned earlier in the pharmacy curriculum to access and utilize these resources. Additionally, students will be expected to utilize resources in manner that yields valid, evidenced-based answers.

**Failure to use appropriate drug information resources may result in a point deduction for the activity. In the spirit of patient safety, utilization of an inappropriate resource that yields correct information will still result in point deduction.**
Citing References: For laboratory assignments that require students to provide a reference list, students should format references as outlined in the AMA Manual of Style (http://www.amamanualofstyle.com/view/10.1093/jama/9780195176339.001.0001/med-9780195176339-chapter-3)

On-line Course Evaluation Policy for Course Syllabi:
Regular course and instructor evaluations are required by state, university and college regulations. These evaluations are essential for improving student learning by providing feedback to faculty about their classroom presentations. Based on your feedback, important decisions are made about courses and how they are taught. This process CANNOT work without your input. Please complete a course and instructor's evaluation for each of your courses.

Your individual responses are completely anonymous. However, the Office of Education Innovation can track who has or has not completed each evaluation and send reminder notices. Summary reports of aggregate data will be provided to the faculty after the semester is completed.

If you do not complete an evaluation, you will receive an incomplete grade (“I”) for the semester because you have not completed all of the course requirements. When you complete the course evaluation, the incomplete grade will be changed to the grade earned in the course.

Blood Borne Pathogen Exposure

UK/Lexington Area:
The purpose of this policy is to delineate the management of incidents of exposure to blood borne pathogens that involve Chandler Medical Center students, including visiting students, during the time when they are in an educational setting.
An educational exposure to blood-borne pathogens is defined as a percutaneous injury (e.g. a needlestick or cut with a sharp object), contact with mucous membranes or contact with skin (especially when the exposed skin is chapped, abraded, or afflicted with dermatitis, or the contact is prolonged or involving an extensive area) with blood, tissues, or other bodily fluids to which universal precautions apply, which occurs in the educational setting.
For a quick reference on Blood Borne Pathogens: http://pharmacy.mc.uky.edu/programs/EEP/files/BBPQR.pdf
For the full policy, please go to link: http://www.uky.edu/Provost/documents/BBPfinal0704.doc

Outside Lexington Area:
Hospital and medical center pharmacies have been identified as providers of medication in the event that prophylactic medication is necessary. The AHEC Site Coordinator should also be notified. http://www.mc.uky.edu/ahec/Students.htm
<table>
<thead>
<tr>
<th>Direct Patient Care</th>
<th>Specific Learning Outcomes</th>
<th>Module Activities</th>
<th>Competency Objectives Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Collect, record, and assess subjective and objective patient data. (Domain 2; CAPE 2.1, 2.3)</td>
<td>Patient Interview: Med Rec, Evaluation of Medication Therapy, “Consult Care” (Complexity: “Simple Patient” with Simple Drug therapy problems)</td>
<td>• Create a problem list from a patient database</td>
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<tr>
<td>2. Identify, assess, prioritize, and resolve medication-related problems. (2.1, 2.3, 2.4)</td>
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<td>• Collect a current medication list and medication use history for prescription and nonprescription medications, herbal products, and other dietary supplements</td>
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<td>5. Demonstrate effective verbal, nonverbal, and written communication skills for patients, caregivers, healthcare providers, and the general public. (3.6, 4.1)</td>
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<td>• Obtain a relevant history for a patient presenting with a chief complaint</td>
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<td>6. Counsel patients and/or caregivers on health and medication information with specific considerations to patient-centered needs. (3.5, 3.6, 4.4)</td>
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<td>• Obtain relevant health data that may include medical history, health and wellness information</td>
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<td>7. Participate in activities that promote health, wellness, and preventive care. (Domain 10; 2.3, 2.4)</td>
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<td>• Analyzes the clinical effects of the patient’s therapy in the context of the patient’s overall health goals to assess each medication for appropriateness, effectiveness, safety, and patient adherence</td>
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<tr>
<td>Patient Assessment: CV, Pulm Labs: Renal, CV, Lipids, &amp; Pulm</td>
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<td>• Conduct a complete and thorough medication history</td>
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<td>• Conduct a chief complaint history to assess patient’s suitability for self-care or need for referral to a higher level of care</td>
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<tr>
<td>Patient Counseling</td>
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<td>• Conduct a chief complaint history to assess the presence of an adverse reaction to medications</td>
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<td>• Conduct an interview for patients with a chronic disease(s).</td>
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<td></td>
<td>• Counsel a patient on a new prescription</td>
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<td>• Counsel a patient on a refill prescription</td>
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<td></td>
<td>• Counsel a patient on a non-prescription medication</td>
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</table>

NOTE: New competency objectives are bolded. Previous competency objectives carry forward through the entire PaCE sequence.
| Clinical Planning (Complexity: “Simple Patient” with Simple Drug therapy problems) | • Analyzes the clinical effects of the patient’s therapy in the context of the patient’s overall health goals to assess each medication for appropriateness, effectiveness, safety, and patient adherence  
• Based on subjective and objective clinical data identify medication-related problems  
• Develops an individualized patient-centered care plan that is evidence-based and cost-effective.  
• Resolve actual and potential medication-related problems  
• Set measurable, patient-specific goals of therapy for achieving clinical outcomes.  
• **Collect, interpret, and make recommendations based on the results of health and wellness screenings and diagnostic tests** |
| Clinical Documentation/ Communication | • Identify sources of patient information in various patient-care settings  
• Describe a systematic method for collecting information from a patient’s medical record  
• Accurately document subjective and objective findings in the patient’s medical record  
• Compare and contrast the elements in and styles of written documentation based on the clinical setting.  
• Document patient care activities clearly, concisely, and accurately using appropriate medical terminology  
• Describe effective techniques for communicating about patients with other members of the health care team  
• **Provide an accurate and systematic patient presentation to a preceptor and/or another health care provider** |

**Simple Patient**= Clinical Presentation is typical and expected. Affect is consistent with cultural norms or Affect is consistent with the patient’s clinical status. The patient does NOT have any psycho-social issues, language barriers, physical disabilities, cultural issues or financial issues

**Complex Patient**= Clinical presentation may be typical and expected but is juxtaposed with psycho-social issues, language barriers, physical disabilities, cultural issues and/or financial issues that would require a health professional to significantly modify how they establish a therapeutic relationship with the patient

**NOTE:** New competency objectives are bolded. Previous competency objectives carry forward through the entire PaCE sequence.
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<td>1. Collect, record, and assess subjective and objective patient data. (CAPE 2.1, 2.3)</td>
<td>Identify sources of patient information in various patient-care settings</td>
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<tr>
<td>2. Identify, assess, prioritize, and resolve medication-related problems. (2.1, 2.3, 2.4)</td>
<td>Describe a systematic method for collecting information from a patient’s medical record</td>
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<tr>
<td>3. Demonstrate a commitment to patient safety by accurately dispensing medications. (CAPE 2.2)</td>
<td>Create a problem list from a patient database</td>
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<tr>
<td>4. Perform accurate pharmaceutical calculations. (CAPE 1.1, 2.2)</td>
<td>Based on subjective and objective clinical data identify medication-related problems</td>
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<tr>
<td>5. Counsel patients and/or caregivers on health and medication information with specific considerations to patient-centered needs. (CAPE 3.5, 3.6, 4.4)</td>
<td>Describe the role of pharmacy technicians in the ambulatory/community pharmacy setting.</td>
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<tr>
<td>6. Counsel patients and/or caregivers on health and medication information with specific considerations to patient-centered needs. (Domain 8; 3.5, 3.6, 4.4)</td>
<td>List the elements of a prescription. Compare/contrast with the legal elements of an institutional order.</td>
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<tr>
<td>7. Assist patients in accessing medications or health-related equipment/products. (Domain 11; 2.2)</td>
<td>List the elements of a dispensed prescription medication.</td>
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<td></td>
<td>Evaluate the acceptability and accuracy of a new prescription or prescription refill.</td>
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<td>Accurately transcribe a prescription into a prescription processing system.</td>
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<td>Accurately prepare prescriptions for dispensing</td>
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<td></td>
<td>Prioritize medication-related problems within the context of the patient’s clinical status and overall health goals.</td>
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<td></td>
<td>Develops an individualized patient-centered care plan that is evidence-based and cost-effective.</td>
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<td>Resolve actual and potential medication-related problems</td>
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<td>Determine an formulary alternatives for both acute care and ambulatory care settings</td>
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<td>Describe the pharmaceutical supply chain and drug acquisition for controlled and non-controlled medications</td>
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<td>List differences between institutional dosage forms and community dosage forms.</td>
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<td>Discuss the role of technology in prescription processing/dispensing in an ambulatory/community setting.</td>
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<td>Safely resolve identified clinical and technical problems with a prescription prior to dispensing.</td>
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<td></td>
<td>Perform the “final check” of a prepared prescription prior to dispensing.</td>
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</tbody>
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NOTE: New competency objectives are bolded. Previous competency objectives carry forward through the entire PaCE sequence.
| Patient Counseling: Cardio, GU, Pulm Medications | • Counsel a patient on a new prescription  
• Counsel a patient on a refill prescription  
• Counsel a patient on a non-prescription medication |
| Non-Sterile Compounding: Capsules/Suppositories | • Identify appropriate storage, handling, and disposal of active pharmaceutical ingredients, chemical ingredients, inactive ingredients, excipients and other components used in compounding. 3C11. Evaluate the acceptability and accuracy of a prescription/medication order for a non-sterile compound  
• Use a formulation record to guide the preparation of a non-sterile compound  
• Accurately document the preparation of a non-sterile compound on a Compounding Record  
• Select and Demonstrate appropriate measurement, equipment use, and compounding technique in the preparation of a non-sterile compound  
• Evaluate the acceptability and accuracy of a prescription/medication order for a non-sterile compound  
• Safely resolve identified clinical and technical problems with a non-sterile prescription prior to dispensing.  
• Determine appropriate beyond-use date, packaging, storage, and labeling of non-sterile compounded products  
• Perform the “final check” of a prepared non-sterile compounded prescription prior to dispensing. |
| Pharmaceutical Calculations | • Perform accurate pharmaceutical calculations pursuant to a medication order/Prescription  
• Perform accurate pharmaceutical calculations in preparation of commercial drug products  
• Perform accurate pharmaceutical calculations in preparation of non-sterile compound drug products  
• Perform accurate pharmaceutical calculations related to the administration of a medication to a patient. |

**NOTE:** New competency objectives are bolded. Previous competency objectives carry forward through the entire PaCE sequence.
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| 1. Collect, record, and assess subjective and objective patient data. (CAPE 2.1, 2.3)  
2. Identify, assess, prioritize, and resolve medication-related problems. (2.1, 2.3, 2.4)  
3. Demonstrate a commitment to patient safety by accurately dispensing medications. (CAPE 2.2)  
4. Perform accurate pharmaceutical calculations. (CAPE 1.1, 2.2)  
8. Assist patients in accessing medications or health-related equipment/products. (Domain 11; 2.2) | | - Identify sources of patient information in various patient-care settings  
- Describe a systematic method for collecting information from a patient’s medical record  
- Create a problem list from a patient database  
- Based on subjective and objective clinical data identify medication-related problems  
- Describe the role of pharmacy technicians in the institutional/acute-care setting.  
- List the elements of a medication order Compare/contrast with the legal elements of a prescription.  
- List the elements of a dispensed inpatient medication  
- List differences between institutional dosage forms and community dosage forms.  
- Explain how medications are distributed to patients in an inpatient setting (eg. New vs existing medications, cartfill vs. automated dispensing cabinet vs. floor stock)  
- Compare/contrast the filling of new versus existing medication orders in an inpatient setting.  
- Evaluate the acceptability and accuracy of a medication order  
- Accurately transcribe a medication order into a inpatient/institutional pharmacy processing system.  
- Accurately prepare unit dose medication orders  
- Determine an formulary alternatives for both acute care and ambulatory care settings  
- Describe the pharmaceutical supply chain and drug acquisition for controlled and non-controlled medications  
- Discuss the role of technology in prescription processing/dispensing in an institutional/acute-care setting  
- Discuss the role of technology in medication ordering/distribution in an inpatient setting.  
- Discuss the role of the nurse in the medication administration process.  
- Discuss the role of technology in medication administration.  
- Describe the processes of medication administration that lead to improved patient safety. |

NOTE: New competency objectives are bolded. Previous competency objectives carry forward through the entire PaCE sequence.
### Health Care Provider Communication: CV, GU, Pulm
- Given a drug information question, access and utilize appropriate drug information resources and provide an accurate and credible solution.
- Communicate an accurate and credible response to a drug information question.

### Sterile Compounding
- Identify appropriate storage, handling, and disposal of active pharmaceutical ingredients, chemical ingredients, inactive ingredients, excipients and other components used in sterile compounding.
- Evaluate the acceptability and accuracy of a medication order for a CSP.
- Use appropriate resources to guide the preparation of a CSP.
- Select and Demonstrate appropriate measurement, equipment use, and technique in the preparation of CSPs.
- Safely resolve identified clinical and technical problems with a CSP medication order prior to dispensing.
- Determine appropriate beyond-use date, packaging, storage, and labeling of CSPs.
- Identify and resolve admixture and y-site medication incompatibilities.
- Perform the “final check” of a prepared CSP prior to dispensing.

### Pharmaceutical Calculations
- Perform accurate pharmaceutical calculations pursuant to a medication order/Prescription.
- Perform accurate pharmaceutical calculations in preparation of commercial drug products.
- Perform accurate pharmaceutical calculations in preparation of sterile compound drug products.
- Perform accurate pharmaceutical calculations related to the administration of a medication to a patient.

Note: New competency objectives are bolded. Previous competency objectives carry forward through the entire PaCE sequence.
PaCE Master List of Competency Objectives

Over the 6 semesters of the PaCE course sequence, students will achieve competency within the following 8 Specific Learning Outcomes (sLOs) mapped to the CAPE outcomes. Each sLO has a series of competency objectives that a student will master over the six-semester course sequence.

1. Collect, record, and assess subjective and objective patient data. (Domain 2; CAPE 2.1, 2.3)
   - **Knowledge Level**
     A. Identify sources of patient information in various patient-care settings
     B. Describe a systematic method for collecting information from a patient’s medical record
     C. Describe a rational approach to selecting and interpreting laboratory and physical exam results
     D. Define Medication Therapy Management and the core elements of Medication Therapy Management
     E. Describe the components of the Pharmacists’ Patient Care Process adopted by the Joint Commission of Pharmacy Practitioners
     F. Describe the steps of medication reconciliation in the acute and ambulatory care settings
   - **Application-level**
     G. Collect a current medication list and medication use history for prescription and nonprescription medications, herbal products, and other dietary supplements
     H. Obtain a relevant history for a patient presenting with a chief complaint
     I. Obtain relevant health data that may include medical history, health and wellness information
     J. Perform and/or Interpret relevant physical exam procedures to monitor a patient’s medication therapy
     K. Select and interpret relevant biometric tests to monitor a patient’s medication therapy
     L. Elicit a patient’s lifestyle habits, preferences and beliefs, health and functional goals, and socioeconomic factors that affect access to medications and other aspects of care
   - **Analysis/Synthesis/Evaluate-level**
     M. Analyzes the clinical effects of the patient’s therapy in the context of the patient’s overall health goals to assess each medication for appropriateness, effectiveness, safety, and patient adherence
     N. Assess health and functional status, risk factors, health data, cultural factors, health literacy and access to medications or other aspects of care
     O. Assess immunization status and the need for preventive care and
other health care services
P. Accurately document subjective and objective findings in the patient’s medical record
Q. Provide constructive feedback to a subordinate in regards to ability to collect, record, and assess patient data

2. Identify, assess, prioritize, and resolve medication-related problems. (Domain 4; 2.1, 2.3, 2.4)
   • **Knowledge Level**
     A. List the categories of medication-related problems
     B. List the desired 4 major outcomes of medication therapy
   • **Application/Analysis-level**
     C. Create a problem list from a patient database
     D. Based on subjective and objective clinical data identify medication-related problems
     E. Prioritize medication-related problems within the context of the patient’s clinical status and overall health goals.
   • **Synthesis/Evaluate-level**
     F. Develops an individualized patient-centered care plan that is evidence-based and cost-effective.
     G. Resolve actual and potential medication-related problems
     1. Specific examples
        a. Renal dosing of medication therapy
        b. IV to PO conversion
        c. Drug Interactions
        d. Therapeutic Drug Monitoring
     H. Set measurable, patient-specific goals of therapy for achieving clinical outcomes
     I. Determine patient education and self-management needs for a patient
     J. Given a drug information question, access and utilize appropriate drug information resources and provide an accurate and credible solution
     K. Provide constructive feedback to a subordinate in regards to subordinates ability to identify, assess, prioritize, and resolve medication-related problems.

3. Demonstrate a commitment to patient safety by accurately dispensing medications. (Domain 1; CAPE 2.2)
   • The student maintains appropriate patient safety controls, complies with regulatory/legal requirements and demonstrates a patient-centered approach while processing or supervising the processing of a prescription.
     A. **Knowledge Level**
     1. Describes the components of common medication use systems in the ambulatory/community setting.
2. Describe the flow of prescriptions from prescriber to patient in an outpatient/ambulatory setting and the pharmacist’s role in this process.

3. Describe the pharmaceutical supply chain and drug acquisition for controlled and non-controlled medications.

4. Identifies common procedures employed to maintain patient safety an ambulatory/community medication use system.

5. Describe the role of the pharmacist in impacting patient safety during the prescribing, transcribing, and dispensing steps of the **mediation use system** in an ambulatory/community setting.

6. Describe the role of pharmacy technicians in the ambulatory/community pharmacy setting.

7. List the elements of a prescription. Compare/contrast with the legal elements of an institutional order.

8. List the elements of a dispensed prescription medication.

9. List differences between institutional dosage forms and community dosage forms.

10. Discuss the role of technology in prescription processing/dispensing in an ambulatory/community setting.

- **Application-level**

  11. Evaluate the acceptability and accuracy of a new prescription or prescription refill.

  12. Accurately transcribe a prescription into a prescription processing system.

  13. Accurately prepare prescriptions for dispensing.

- **Synthesis/Evaluate-level**

  14. Safely resolve identified clinical and technical problems with a prescription prior to dispensing.

  15. Perform the “final check” of a prepared prescription prior to dispensing.

  16. Supervise the preparation of prescriptions.

  17. Evaluate the performance of subordinates and provide constructive feedback in regards to the dispensing of prescriptions.

  18. Develop a plan for quality or performance improvement related to the dispensing process.

- The student maintains appropriate patient safety controls, complies with regulatory/legal requirements and demonstrates a patient-centered approach while processing or supervising the processing of a **Medication Order**.

B. **Knowledge Level**

1. Describes the components of common medication use systems in the institutional/acute-care setting.

2. Describe the flow of medication orders from prescriber to patient in an inpatient setting and the pharmacist’s role in this process.
3. Describe the pharmaceutical supply chain and drug acquisition for controlled and non-controlled medications
4. Identifies common procedures employed to maintain patient safety an institutional/acute-care medication use system.
5. Describe the role of the pharmacist in impacting patient safety during the prescribing, transcribing, and dispensing steps of the medication use system in an institutional/acute-care setting.
6. Describe the role of pharmacy technicians in the institutional/acute-care setting.
7. List the elements of a medication order Compare/contrast with the legal elements of a prescription.
8. List the elements of a dispensed inpatient medication
9. List differences between institutional dosage forms and community dosage forms.
10. Discuss the role of technology in prescription processing/dispensing in an institutional/acute-care setting
11. Explain how medications are distributed to patients in an inpatient setting (eg. New vs existing medications, cartfill vs. automated dispensing cabinet vs. floor stock).
12. Discuss the role of technology in medication ordering/distribution in an inpatient setting.
13. Discuss the role of the nurse in the medication administration process.
14. Discuss the role of technology in medication administration.
15. Describe the processes of medication administration that lead to improved patient safety.

- **Application-level**
  16. Compare/contrast the filling of new versus existing medication orders in an inpatient setting.
  17. Evaluate the acceptability and accuracy of a medication order
  18. Accurately transcribe a medication order into a inpatient/institutional pharmacy processing system.
  19. Accurately prepare unit dose medication orders (dose oral solids, oral liquids, inhalers, otics, ophthalmics, intravenous unit-dose medications, intravenous admixture systems [eg. Baxter mini-bag plus, Abbott Advantage, frozen systems], commercially available ready-to-use diluted IV medications)

- **Synthesis/Evaluate-level**
  20. Perform the “final check” of a prepared unit dose medication order prior to dispensing (oral solids, oral liquids, inhalers, otics, ophthalmics, intravenous unit-dose medications, intravenous admixture systems, and commercially-available ready-to-use diluted IV medications).
  21. Safely resolve identified clinical and technical problems with a
medication order prior to dispensing.
22. Supervise the preparation of unit dose medication orders.
23. Evaluate the performance of subordinates and provide constructive feedback in regards to the dispensing of unit dose medication orders,
24. Develop a plan for quality or performance improvement related to the dispensing process.

• Prepare and/or supervise the preparation of non-sterile compounds such that compounds are prepared to meet regulatory standards, preserve patient safety, and maintain compliance with regulatory/legal regulations.

c. Knowledge Level
   1. Differentiate between compounding and manufacturing based on legal/regulatory guidance
   2. Describe the necessary facilities and equipment required for non-sterile compounding
   3. List relevant references and resources applicable to non-sterile compounding
   4. Describe an ideal workflow for non-sterile compounding that maintains patient safety.
   5. Identify and describe the use and maintenance of common equipment/tools for non-sterile compounding
   6. Specify the acceptable chemical grades for active pharmaceutical ingredients, chemical ingredients, inactive ingredients, excipients and other components used in compounding
   7. Describe methods to evaluate the quality of compounded non-sterile products
   8. Identify appropriate storage, handling, and disposal of active pharmaceutical ingredients, chemical ingredients, inactive ingredients, excipients and other components used in compounding.
   9. Discuss the roles of the formulation record, the compounding record, and other documents used to ensure the appropriate preparation and evaluation of a non-sterile preparation.
10. Identify the established/compendial requirements for beyond-use dating, potency, sterility, packaging, storage, and labeling of non-sterile compounded products

Application-level
   Note: The following specific learning outcomes apply to the following non-sterile dosage forms: oral liquids, topicals, capsules, and suppositories
11. Evaluate the acceptability and accuracy of a prescription/medication order for a non-sterile compound
12. Use a formulation record to guide the preparation of a non-sterile
13. Accurately document the preparation of a non-sterile compound on a Compounding Record.

14. Select and demonstrate appropriate measurement, equipment use, and compounding technique in the preparation of a non-sterile compound.

15. Safely resolve identified clinical and technical problems with a non-sterile prescription prior to dispensing.

16. Determine appropriate beyond-use date, packaging, storage, and labeling of non-sterile compounded products.

18. Select and interpret quality assurance tests/activities to assure that compounded preparations meet criteria for identity, strength, quality, and purity.

19. Perform the “final check” of a prepared non-sterile compounded prescription prior to dispensing.

20. Supervise the preparation of non-sterile compounded prescriptions.

21. Evaluate the performance of subordinates and provide constructive feedback in regards to the preparation of non-sterile compounds.

22. Develop a formulation record for non-sterile compound that would yield a safe and appropriate compounded product.

- Prepare and/or supervise the preparation of **sterile compounds** such that compounds are prepared to meet regulatory standards, preserve patient safety, and maintain compliance with regulatory/legal regulations.

**d. Knowledge Level**

1. Differentiate between compounding and manufacturing based on legal/regulatory guidance.

2. Describe the necessary facilities and equipment required for sterile compounding.

3. Discuss how the IV room facility design and quality assurance processes contribute to USP 797 compliance.

4. List relevant references and resources applicable to sterile compounding.

5. Describe an ideal workflow for sterile compounding that maintains patient safety.

6. List the components of environmental monitoring and related documentation that must be completed on a routine basis to ensure adequate environmental and personnel controls are in place to prevent contamination of CSPs.

7. Identify and describe the use and maintenance of common equipment/tools for sterile compounding.

8. Describe methods to evaluate the quality of compounded sterile...
9. Identify appropriate storage, handling, and disposal of active pharmaceutical ingredients, chemical ingredients, inactive ingredients, excipients and other components used in sterile compounding.

10. Identify the established/compendial requirements for beyond-use dating, potency, sterility, packaging, storage, and labeling of sterile compounded products

**Application-level**

11. Compare and contrast the Risk Level Classifications for CSP

12. Evaluate the acceptability and accuracy of a medication order for a CSP

13. Use appropriate resources to guide the preparation of a CSP

14. Select and Demonstrate appropriate measurement, equipment use, and technique in the preparation of CSPs.

15. Safely resolve identified clinical and technical problems with a CSP medication order prior to dispensing.

16. Determine appropriate beyond-use date, packaging, storage, and labeling of CSPs

17. Identify and resolve admixture and y-site medication incompatibilities

**Synthesis/Evaluate-level**

18. Perform the “final check” of a prepared CSP prior to dispensing.

19. Supervise the preparation of CSPs

20. Evaluate the performance of subordinates and provide constructive feedback in regards to the preparation of CSPs

21. Develop a Standard Operating Procedure related to preparation of CSPs

4. Perform accurate pharmaceutical calculations. (Domain 5; 1.1, 2.2)

   A. Perform accurate pharmaceutical calculations pursuant to a medication order/Prescription
   
   B. Perform accurate pharmaceutical calculations in preparation of commercial drug products
   
   C. Perform accurate pharmaceutical calculations in preparation of non-sterile compound drug products
   
   D. Perform accurate pharmaceutical calculations in preparation of sterile compound drug products
   
   E. Perform accurate pharmaceutical calculations related to the administration of a medication to a patient.

5. Demonstrate effective verbal, nonverbal, and written communication skills for patients, caregivers, healthcare providers, and the general public. (Domain 7; 3.6, 4.1)

   •  **Knowledge Level**

   A. Explain the basic communication skills needed when performing a
patient interview
B. Describe the components of the patient interview
C. Explain the importance of documenting pharmacist interventions and recommendations in patient care
D. Describe effective techniques for communicating about patients with other members of the health care team

- Application/Analysis-level
E. Compare and contrast the different patient interview approaches in various clinical settings
F. Compare and contrast the elements in and styles of written documentation based on the clinical setting.

- Synthesis/Evaluate-level
G. Conduct a complete and thorough medication history
H. Conduct a comprehensive medication review
I. Conduct a complete and accurate medication reconciliation
J. Conduct a chief complaint history to assess patient’s suitability for self-care or need for referral to a higher level of care
K. Conduct a chief complaint history to assess the presence of an adverse reaction to medications
L. Conduct an interview for patients with a chronic disease(s).
M. Adapt the interview technique based on the needs of the patient
N. Document patient care activities clearly, concisely, and accurately using appropriate medical terminology
O. Document a personal medication record following a comprehensive medication review
P. Document a medication-related action plan following a comprehensive medication review
Q. Communicate an accurate and credible response to a drug information question
R. Provide an accurate and systematic patient presentation to a preceptor and/or another health care provider
S. Provide constructive feedback to a subordinate in regards to verbal, non-verbal and/or written communication

6.

- Knowledge Level
A. Explain the basic communication skills needed to provide an effective patient counseling session
B. Describe patient counseling techniques used in various clinical settings
C. Describe the components of a complete counseling session
D. Identify specific needs of and barriers to communicating with special populations

- Application/Analysis-level
E. Compare and contrast how counseling sessions vary when interacting with special populations
**Synthesis/Evaluate-level**

F. Counsel a patient on a new prescription
G. Counsel a patient on a refill prescription
H. Counsel a patient on a non-prescription medication
I. Adapt counseling techniques based on the needs of the patient
J. Create patient education materials to enhance a patient’s understanding of medications
K. Provide constructive feedback to a subordinate in regards to accuracy and completeness of a counseling session.

7. Participate in activities that promote health, wellness, and preventive care. (Domain 10; 2.3, 2.4)

- **Knowledge Level**
  L. {covered outside of PaCE}
- **Application/Analysis-level**
  M. {covered outside of PaCE}
- **Synthesis/Evaluate-level**
  N. Collect, interpret, and make recommendations based on the results of health and wellness screenings and diagnostic tests
  O. Provide immunization services as part of a “vaccine clinic” or similar vaccination event
  P. Participate in a health screening event
  Q. Participate in a “brown bag” medication event

8. Assist patients in accessing medications or health-related equipment/products. (Domain 11; 2.2)

- **Knowledge Level**
  R. {covered outside of PaCE}
- **Application/Analysis-level**
  S. {covered outside of PaCE}
- **Synthesis/Evaluate-level**
  T. Determine prescription medication coverage for a patient
  U. Determine an formulary alternatives for both acute care and ambulatory care settings
  V. Identify patient assistance programs
  W. Select and Implement appropriate behavioral interventions to improve patient adherence
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**Total Credit Hours:**
- PY1: 19
- PY2: 19
- PY3: 16
- PY4: 17
- TOTAL: 42