New Course Form

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

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Attachments:

ID Attachment
Delete 5266 PHR 967 INTEGRATED DRUGS AND DISEASES 5 - PHARMAC

(*denotes required fields)

1. General Information
a. * Submitted by the College of: PHARMACY Submission Date: 9/9/2015
b. * Department/Division: Pharmacy

c. * Contact Person Name: Frank Romanelli Email: froma2@email.uky.edu Phone: 257-4778
   Trenika Mitchell Email: tmitch2@email.uky.edu Phone: 323-3581

d. * Requested Effective Date: © Semester following approval OR Specific Term/Year Spring 2016

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 967

c. * Full Title: Integrated Drugs and Diseases 5: Pharmacotherapy Applications in Special Populations

d. Transcript Title (if full title is more than 40 characters): IDD 5: Special Populations

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 Recitation 32 Discussion
   Indep. Study Clinical Residency Practicum
   Research Seminar Studio
   Other If Other, Please explain:

   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 course will describe the pharmacology, medicinal chemistry, pathophysiology, pharmacogenomics, and therapeutics associated with commonly encountered special populations to facilitate the student design management of drug-related care plans for patients with these disease states.

k. Prerequisites, if any:
   Successful completion of years 1 and 2 of PharmD curriculum

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:

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 pgm?  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
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 include additional assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students.

b. * The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentials 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.
2. The chair of the cross-listing department must sign off on the Signature Routing Log.
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 hours are 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 also be submitted.

Rev 8/09
Course Description:
This course will describe the pharmacology, medicinal chemistry, pathophysiology, pharmacogenomics, and therapeutics associated with commonly encountered special populations to facilitate the student design and management of drug-related care plans for patients with these disease states.

Prerequisites:
Successful completion of the first and second–year curriculum in the College of Pharmacy.

Student Learning Outcomes:
1. Explain the pathophysiology, pharmacogenomics, and therapeutic approaches to commonly-encountered disease states.
2. Describe and discuss the pharmacology and medicinal chemistry of drugs used to manage commonly-encountered disease states.
3. Use patient history, laboratory data, and physical assessment findings to differentiate between commonly-encountered disease states.
4. Synthesize information related to pharmacology, medicinal chemistry, and therapeutics in order to manage pharmacotherapeutic care plans (SOAP notes) associated with commonly-encountered disease states.
**Course Meeting Pattern and Location:**
Recitation M and T (8-9AM)

**Course Modules:** Course modules may have varying lengths of time.
Module 1: Pharmacogenomics

Module 2: Pregnancy/Lactation

Module 3: Applying previous IDD knowledge to special populations
- Geriatrics
- Pediatrics
- Underserved populations

**Required Materials:**
Casebook and other reading materials will be provided in the Learning Management System (LMS). The student should have ARS clickers available for quizzes. Students should also bring either a laptop or tablet to each session. Students can contact tech support at helpdesk@uky.edu or the UCKOP IT Office in BPC 198 if problems arise with technology devices.

**Course Philosophy:**
To extend and build upon the concepts of pharmacology, medicinal chemistry, pathophysiology, and therapeutics from other IDD courses into special populations so that students can design and manage drug-related care plans for these patients.

**Summary Description of Course Assignments:**
- The course will be split into three modules. (See individual modules above.)
- As the course will build upon concepts previously presented in other IDD courses, the time spent in didactic lecture will be minimal. The main didactic portions will be provided in the beginning pharmacogenomics and pregnancy and lactation lectures.
- Example disease states that will be utilized in the course include:
  - Seizures, hypertension, diabetes, and labor induction/prevention in pregnant women
  - Infectious disease (i.e. antimicrobial use) and narcotic withdrawal in the pediatric patient population
  - Depression, dementia, and general polypharmacy in the elderly patient population
  - Health and wellness in the underserved patient population
    - Nutritional recommendations in patients of various ethnicities or those with a low socioeconomic status
    - Exercise recommendations for the disabled or patients with low access to gyms or trainers
  - Dosing differences due to PK in pediatric versus adult patients
- Grades will be comprised from:
- Class participation
- SOAP notes
- Patient presentations/group projects

**Assessment:**

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<th>Percentage</th>
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<td>80-89.99%</td>
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<td>&lt;70%</td>
<td>E</td>
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- Mid-term Assessment/Project: 30%
- Final Assessment/Project: 30%
- In-class Participation: 20%
- Assignments: 20%

*All exam/course related grades and assessment are final after 3 days of posting.*

**Exam Schedule/Location/Times:**

TBD

**Exam Policies:**
The Special Populations course will not give traditional multiple-choice exams. Examinations can include case presentations, SOAP note preparation, or special projects. All examinations should be completed on time, and students must present their own work. Any evidence of plagiarism or cheating will result in a grade of zero for the exam, and the incident will be sent to the Honor Code committee. Please see additional information in the Academic Integrity section below.

**Course Policies:**
**Instructor/Student Communications:**
Instructors will communicate to students via email, announcements in the Learning Management System, or class officers. Students should check emails daily. Instructors will respond to student emails within 48 hours unless the email is received on a weekend or holiday. If the instructor is emailed on a weekend or holiday, he/she will respond to the email within 48 hours of the next scheduled working day.

**Course Assignments:**
Both in-class and out-of-class assignments will be employed in this course. Students can anticipate to devote 2-3 hours per week of preparation outside of in-class time. Any pre-class readings or videos will be posted at least 72 hours in advance of the class by the
The method of assignment submission will be determined by the instructor of record for that assignment and can include a variety of methods (paper submissions, emailed submissions, Learning Management System submissions, ARS activities, etc). All assignments must be submitted on time by the student. Late assignment submissions will receive a grade of zero except under extreme circumstances that warrant instructor consideration. These conditions are outlined by the University Senate in their definition of an excused absence. Assignments will be graded and posted in the Gradebook section of the Learning Management System within two weeks of the due date.

Attendance Policy:
Attendance at all class sessions is mandatory. Students absent from a class session will receive a grade of "0" on any activities for the day. Absences may be excused by course faculty for extreme circumstances. Should such circumstances arise that prevent your attendance, students must contact the course coordinator prior to the beginning of class. If an absence is excused, students will be allowed to make-up any missed work.

Excused Absences:
College Policy (student handbook) --

Verification of Absences (boilerplate)
Students may be asked to verify their absences in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request “appropriate verification” when students claim an excused absence because of illness or death in the family. Appropriate notification of absences due to university-related trips is required prior to the absence.

Classroom Behavior Policies / Professionalism:
Faculty strive to create a positive educational environment that affords all students the opportunity to achieve their potential. Students are expected to conduct themselves in a professional manner at all times, demonstrating respect for each other and course instructors, while participating in all laboratory activities with a positive attitude. Behaviors expected of a "professional in training" include: preparing adequately for class; arriving on time; completing assignments efficiently and cooperatively; and communicating with course faculty and peers in a respectful manner. Students who fail to demonstrate professional behavior during class will be asked to leave and will forfeit any points assigned for activities completed in that class session. Additionally, students are subject to disciplinary action for unprofessional conduct or behaviors in accordance with the Health Care Colleges Code of Student Professional Conduct (aka: HCC Code) that can be accessed via the COP Handbook, and a copy of all written correspondence concerning improper behavior will be forwarded to the student record in the College of Pharmacy Student and Academic Affairs Office.
**Academic Integrity:**
Cheating and plagiarism will not be tolerated and will be prosecuted to the fullest extent of Honor Code and University regulations. All quizzes and examinations will be taken in accordance with the College of Pharmacy Honor Code which can be found at the following address: 

Except in instances where students are explicitly instructed to submit work done as a group, students are expected to work and submit material individually. It is up to each student to ensure that his/her own behavior during an examination/quiz is such that no doubt could possibly exist about his/her honesty and integrity. Cell phones, iPods, and other electronic storage devices must be stored out of sight and reach during all quizzes and examinations. All desktops should be cleared of notes, electronic devices, etc. during quizzes and exams unless otherwise noted by the instructor. Students are responsible for carefully protecting all their materials during graded assignments, quizzes and examinations to prevent any semblance of cheating (i.e., make selections as discreetly as possible, not showing responses to classmates, etc.).

**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 fall/spring 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 in no case later than the third day of classes for the fall/spring semester.

**Religious Observances:**
“Faculty shall give students the opportunity to make up work (typically, exams or assignments) when students notify them that religious observances prevent the students
from doing their work at its scheduled time. Faculty shall indicate in their syllabus how much
advance notice they require from a student requesting an accommodation. Faculty may use
their judgment as to whether the observance in question is important enough to warrant an
accommodation, although the presumption should be in favor of a student's request. The
Offices of Institutional Diversity, the Dean of Students, and the Ombud are available for
consultation." Thus faculty are to be flexible in allowing student observers to make up school
work missed on the official or commonly recognized high holy days. Supervisors are urged
to show the same sensitivity regarding employees.

**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.

*Syllabus is subject to change with sufficient notice.*
## Course Schedule and Content

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<thead>
<tr>
<th>Week</th>
<th>Module</th>
<th>Content</th>
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<tbody>
<tr>
<td>1</td>
<td>Pharmacogenomics</td>
<td>a. History of pharmacogenomics&lt;br&gt;b. Gene-drug interactions - case</td>
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<tr>
<td>2</td>
<td>Pharmacogenomics</td>
<td>a. Personalized medicine – case&lt;br&gt;b. <strong>Assignment 1 due</strong></td>
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<td>3</td>
<td>Pregnancy/Lactation</td>
<td>a. General fetus development and pregnancy progression&lt;br&gt;b. Drug risks to developing fetus - case</td>
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<tr>
<td>4</td>
<td>Pregnancy/Lactation</td>
<td>a. Mammary gland and transition during lactation&lt;br&gt;b. Drug risks to nursing infant - case</td>
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<tr>
<td>5</td>
<td>Pregnancy/Lactation</td>
<td>a. Risk/benefit assessment for mother and fetus/infant – case&lt;br&gt;b. <strong>Assignment 2 due</strong></td>
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<tr>
<td>6</td>
<td>MID-TERM ASSESSMENT</td>
<td>a. PK/PD issues - case&lt;br&gt;b. Dementia</td>
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<td>7</td>
<td>Application of IDD to Special Populations: Geriatrics</td>
<td>a. Hospice/palliative care - case&lt;br&gt;b. Communication with patients and caregivers&lt;br&gt;c. Polypharmacy - case</td>
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<tr>
<td>8</td>
<td>Application of IDD to Special Populations: Geriatrics</td>
<td>a. PK/PD issues - case&lt;br&gt;b. Communication with patients and caregivers&lt;br&gt;c. Drug delivery issues – case&lt;br&gt;d. <strong>Assignment 3 due</strong></td>
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<td>9</td>
<td>Application of IDD to Special Populations: Pediatrics</td>
<td>a. Individual characteristics/attributes that influence therapy&lt;br&gt;b. Access to therapy&lt;br&gt;c. Health literacy&lt;br&gt;d. Integrating cultural differences into therapeutic regimens - case</td>
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<td>10</td>
<td>Application of IDD to Special Populations: Underserved Populations</td>
<td>a. Individual characteristics/attributes that influence therapy&lt;br&gt;b. Access to therapy&lt;br&gt;c. Health literacy&lt;br&gt;d. Integrating cultural differences into therapeutic regimens – case&lt;br&gt;e. <strong>Assignment 4 due</strong></td>
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<td>11</td>
<td>Application of IDD to Special Populations: Underserved Populations</td>
<td>a. Individual characteristics/attributes that influence therapy&lt;br&gt;b. Access to therapy&lt;br&gt;c. Health literacy&lt;br&gt;d. Integrating cultural differences into therapeutic regimens – case&lt;br&gt;e. <strong>Assignment 4 due</strong></td>
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<td>12</td>
<td>FINAL ASSESSMENT</td>
<td>a. Individual characteristics/attributes that influence therapy&lt;br&gt;b. Access to therapy&lt;br&gt;c. Health literacy&lt;br&gt;d. Integrating cultural differences into therapeutic regimens – case&lt;br&gt;e. <strong>Assignment 4 due</strong></td>
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Background
The current Doctor of Pharmacy curricula at the University of Kentucky was implemented in 1996 and with few minor exceptions the degree program has essentially remained unchanged. As a component of the 2011-13 Collegiate Strategic Plan the faculty endorsed a broad scale curricular reform process. The decision to engage in a major revision of the curriculum was driven by both internal (lag time since major modifications) and external factors (role of technologic and learning/pedagogic advances). Beginning in July of 2011 the College constituted several committees and working groups to design a new curricular framework that would change both the content and delivery model associated with the current Doctor of Pharmacy degree program. These various working groups have involved faculty, students, staff, residents, and alumni. Additionally, the College’s external advisory board has received regular updates on curricular reform progress and, in turn, provided feedback and recommendations for additional changes or modifications. In May of 2014 the faculty and other parties participated in a Curricular Reform Retreat held at the Boone Center. The Content map of courses has undergone 11 different revisions (see Content 11.1 attachment). To date, Curricular Reform has involved 4 distinct phases. The goal for launch of the ‘new’ curriculum (with the first professional year) is projected for Fall 2016.

Phase 1: Establishment of new outcomes for the Doctor of Pharmacy Degree Program. These ‘new’ outcomes were adopted and modified from the 2014 Center for Advancement of Pharmaceutical Education (CAPE) Proposed PharmD curricular outcomes. Once these outcomes were adopted both a Content Map and Delivery model were designed. Phase 1 also involved a re-examination of existing pre-requisites with small modifications which were approved by the HCCC in 2014.

Phase 2: This phase involved the initial ‘build-up’ of new courses as defined by our content map. These build-ups were orchestrated by teams of faculty who proposed goals and objectives for each course as well as broad “teaching topics” that would be found within each course. These teams also made initial proposal for assessments within each course as well as projected credit hour allotments.

Phase 3: In this phase specific faculty members were assigned a ‘new’ course and after being provided with ‘build up’ documents from Phase 2 they were asked to formally assemble a course syllabus using a uniform template syllabus.
Phase 4: All proposed syllabi were then collected and mapped to intended outcomes as well as topical areas required by our accreditation agency (Accreditation Council of Pharmacy Education-ACPE). Courses were also each reviewed by the curriculum committee and referred to course directors for edits, modifications, and clarifications. Subsequently, all syllabi were approved/endorsed by the curriculum committee and forwarded to the faculty. At the May 2015 meeting of the College Faculty all syllabi were approved.

Phase 5: Submission to HCCC for approval of courses by professional year.

Phase 6: PY1 ramp-up, The Institute, Fall 2016 launch (see “on-going activities” below).

Curricular Highlights (see Content 11.1 attachment)

- The new curriculum spans 4 professional years with no changes having been made to the fourth professional year. The fourth professional year involves 42 weeks of advanced pharmacy practice experiences (APPEs).
- Content within the new curriculum will be delivered using a hybrid or blended-learning model involving recitation, mini-lectures, off-loaded content, inverted classrooms, workshops, projects, and cases. Personal accountability for learning will undergird our approach as will limited or no “re-teaching” of previously instructed course work.
- The first professional year is primarily composed of foundational course work.
- The new curriculum involves a more integrated rather than silo approach to instructing pharmacy practice. The existing curriculum teaches students medicinal chemistry, pharmacology, physiology, pathophysiology, and pharmacotherapy in a set of separate and distinct courses. Within the new curriculum all of these courses have been combined and modularized so that instruction centers around a core body system or disease state. Instruction is integrated rather than sequestered. The integrated modular instruction will occur in a series of courses dubbed as “Integrated Drugs and Disease (IDD).” IDD will begin in the first professional year and continue to the third professional year as topics increase in complexity.

An example of IDD sequence involving HIV would involve instruction regarding normal immune physiology followed by the pathogenesis of HIV infection. Students would then be introduced to the medicinal chemistry of antiretrovirals, followed by the pharmacology of these agents. Lastly, students would learn the pharmacotherapeutic strategies and treatment guidelines for use of these drugs in managing acutely infected patients.

- Students will take part in a two-part course series designed to provide a foundation in scholarly inquiry. Scholarship I will introduce the fundamentals of basic inquiry while Scholarship II will require students to engage in the development of some faculty-mentored research, business, or clinical practice plan.
- iCATS 1.0 will remain a component of the new curriculum as defined by the UKs Center for Interprofessional Education (CPE).
- New curricular elements will include basic instruction in the differential diagnosis of low acuity primary care issues commonly encountered in the pharmacy setting, course work in
clinical reasoning and thought processes, and a course series dedicated to the enhancement of ‘soft skills.’

- The total projected credit hours for the new curriculum is estimated to be: 152 hours. The existing curriculum embodies 156 credit hours.

**On-Going Activities**

- Beginning in 2013 the College launched a faculty development seminar series labeled “CALIBRATE,” designed to prepare faculty for teaching in the new curriculum. Topical areas covered within this on-going seminar series have varied and included both internal as well as nationally recognized external speakers.

- PaCE or the ‘Patient Care Experience’ is a six semester sequence of courses intended to span the first three professional years of the new curriculum which will engender both simulated patient care encounters (laboratory exercises) and experiential training. The PaCE sequence is currently being revised and will be presented to the curriculum committee and faculty before being forward to the HCCC. To date plans are for PaCE to follow a “see one, do one, teach one” model where teams of first, second, and third professional year students work in teams to complete patient care related activities. Senior students within these teams will be given more supervisory responsibilities, while more junior students will be responsible for carrying out prescription orders or other patient related activities.

- STEPS: a component of assessment related to the new curriculum will be the incorporation of milestone exams or “STEPS” at the conclusion of each professional year. These exams will allow students to gauge their progress and learning across a professional year and will afford the ability to identify potential areas of weakness that could be remediated before progression to the next professional year. The development plan for these assessments is on-going.

- iPAD Initiative: The faculty are exploring adoption of an iPAD computing requirement for all students matriculating into the new curriculum. The use of a standardized iPAD platform would allow the faculty to better standardize teaching, accomplish content distribution, and conduct assessments.

- ExamSoft: The faculty have endorsed a move to ExamSoft® as the standard assessment software which will be used within the new curriculum. The use of ExamSoft® will allow for the standardization of all assessments, development of question banks, more rapid dissemination of feedback and grades, and mapping of individual questions to both outcomes as well as topical areas required by our accreditation agency. ExamSoft will also allow the faculty to provide students more robust statistical data in terms of their performance in specific areas or topics associated with any given course within the new curriculum.

- “The Institute”: As an extension of the CALIBRATE series, The Institute will involve a more intensive ‘boot camp’ approach to faculty and course development. The Institute will be a hands-on, multi-day workshop designed as a more rigorous training experience for faculty who will be teaching in the first professional year in Fall 2016. As the curriculum fans out, second and then third professional year teaching faculty will be invited to participate within The Institute.
### Content 11.2

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<td>Transitions in Pharmacy</td>
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**Notes:**
- **PaCE** 1: PHR 910-001
- **PaCE** 2: PHR 920-001
- **IPPE I** 2 weeks Amb PHR 928-001
- **IPPE II** 2 Weeks Inst PHR 929-001
- **PaCE** 3 3: PHR 930-001
- **PaCE** 4 4: PHR 940-001
- **PaCE** 5 5: PHR 950-001
- **PaCE** 6 6: PHR 960-001