New Course Form

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

Open in full window to print or save

Attachments:

ID Attachment
Delete 5262 PHR 964 PHARMACY OPERATIONS AND FINANCIAL MANAGEMENT

(*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
   d. * Responsible Faculty ID (if different from Contact): Jeff Cain Email: jeff.cain@email.uky.edu Phone: 257-4429
   e. * Requested Effective Date: Semester following approval OR Specific Term/Year Spring 2016
   f. 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 964
   c. * Full Title: Pharmacy Operations and Financial Management
   d. Transcript Title (if full title is more than 40 characters): Pharmacy Operations & Financial Mgmt
   e. To be Cross-Listed with (Prefix and Number): PHR 965
   
   * 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

Courses

Request Tracking

Curricular Proposal

https://iweb.uky.edu/CurricularProposal/Form_NewCourse.asp

1 of 3 9/9/2015 3:05 PM
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:
   COURSE WILL BE TAUGHT IN TWO SECTIONS. This course will contain both in-class learning activities and assignments. Class recitations will involve a variety of activities designed to help students think about course concepts. These activities will consist of case study discussions, analysis of operational, financial, HR scenarios, student presentations, and various problem-solving and decision-making activities for hypothetical situations. Successful completion of in-class course assignments will require adequate preparation. Instructors will provide preparatory materials in advance of class (typically 1 week before recitation) and a checklist of what students need to know and/or be able to do during the upcoming recitation session. It is the student’s responsibility to make sure they are prepared and to seek help from the instructor if necessary. It is anticipated that students will spend 3-4 hours per week outside of the classroom preparing for in-class recitations. Some assignment

k. Prerequisites, if any:
   Successful entry into spring semester of Professional Year 2.

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?  70

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
If YES ⚫, list affected programs:

PharmD new curriculum

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:

(i) 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 differences) above) are attached.
Course Description/Goal(s)
This course provides an introduction to fundamental management and business principles pertaining to pharmacy practice settings. The course covers concepts of operations management, human resources management, and financial management. The purpose of this course is to provide students with requisite business skills and knowledge necessary to function as a professional within a health care organization.

Student Learning Outcomes
After completing this course, the student will be able to:
1. Apply concepts of human resource management in hiring, evaluating and terminating pharmacists, technicians and other pharmacy employees.
2. Apply concepts of human resource management in managing groups, organizations, and conflicts in the workplace.
3. Apply concepts of operations management and marketing to community pharmacy and health-systems pharmacy practice.
4. Describe the importance of informatics in healthcare for continuous quality improvement.
5. Apply concepts of financial management to planning, conducting, and analyzing financial operations within pharmacy practice settings.
## Course Topics with Detailed Learning Outcomes

<table>
<thead>
<tr>
<th>Topic</th>
<th>Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacist in charge/Regulatory</td>
<td>Describe the legal and regulatory requirements of the pharmacist in charge (PIC)</td>
</tr>
<tr>
<td>Human Resources</td>
<td>Describe general human resource laws pertaining to hiring, firing, and disciplining employees. Describe general human resources principles and best practices for managing employees.</td>
</tr>
<tr>
<td>Human Resources</td>
<td>Describe and demonstrate basic conflict management techniques</td>
</tr>
<tr>
<td>General Operations</td>
<td>Describe general pharmacy operations such as workflow management, organizational structures, and policies and procedures</td>
</tr>
<tr>
<td>Operations (Inventory &amp; Purchasing)</td>
<td>Describe, evaluate, and analyze the various inventory purchasing methods. Describe best practices for inventory purchasing and management</td>
</tr>
<tr>
<td>Operations (Marketing)</td>
<td>Conduct a market analysis</td>
</tr>
<tr>
<td>Operations (Non-traditional organizations)</td>
<td>Describe basic operations of non-traditional organizations (Managed care, Specialty Pharmacies, etc...)</td>
</tr>
<tr>
<td>Operational Finance</td>
<td>Describe basic principles of insurance and reimbursements</td>
</tr>
<tr>
<td>Finance</td>
<td>Read and interpret financial statements</td>
</tr>
<tr>
<td></td>
<td>Calculate and analyze key financial indicators</td>
</tr>
<tr>
<td></td>
<td>Calculate break-even points</td>
</tr>
<tr>
<td></td>
<td>Describe the budgeting process</td>
</tr>
<tr>
<td></td>
<td>Create a budget</td>
</tr>
<tr>
<td>Informatics</td>
<td>Describe various information technologies used in automation and decision-making</td>
</tr>
<tr>
<td>Informatics</td>
<td>Describe the use of informatics tools in clinical and business decision-making</td>
</tr>
<tr>
<td>OSCE</td>
<td></td>
</tr>
<tr>
<td>Finals</td>
<td></td>
</tr>
</tbody>
</table>
UK COP Adopted CAPE Outcomes Mapping

<table>
<thead>
<tr>
<th>Outcome</th>
<th>CAPE Outcome Mapping</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply concepts of human resource management in hiring, evaluating and terminating pharmacists, technicians and other pharmacy employees.</td>
<td>Domain 2.2.4 Identify and utilize human, financial, and physical resources to optimize the medication use system.</td>
<td>Summative exam, in-class learning activities and OSCE (Objective Structured Clinical Exam)</td>
</tr>
<tr>
<td>Apply concepts of human resource management in managing groups, organizations, and conflicts in the workplace.</td>
<td>Domain 2.2.4 Identify and utilize human, financial, and physical resources to optimize the medication use system.</td>
<td>Summative exam, in-class learning activities and OSCE (Objective Structured Clinical Exam)</td>
</tr>
<tr>
<td>Apply concepts of operations management and marketing to community pharmacy and health-systems pharmacy practice.</td>
<td>Domain 2.2.4 Identify and utilize human, financial, and physical resources to optimize the medication use system.</td>
<td>Summative exam, in-class learning activities and OSCE (Objective Structured Clinical Exam)</td>
</tr>
<tr>
<td>Describe the importance of informatics in healthcare for continuous quality improvement.</td>
<td>Domain 2.2.3 Utilize technology to optimize the medication use system.</td>
<td>Summative exam, in-class learning activities, and quizzes</td>
</tr>
<tr>
<td>Apply concepts of financial management to planning, conducting, and analyzing financial operations within pharmacy practice settings.</td>
<td>Domain 2.2.4 Identify and utilize human, financial, and physical resources to optimize the medication use system.</td>
<td>Summative exam, in-class learning activities and OSCE (Objective Structured Clinical Exam)</td>
</tr>
</tbody>
</table>

Course Meeting Pattern and Location:
Course will contain 2 sections
Each section will have one 2-hour recitation per week.
Date/Time/Location TBD

Prerequisites:
Successful entry into Spring Semester of Professional Year 3.

Required Materials:
Turning Point clicker
Mobile computing device meeting the requirements specified by the College
Online casebook (provided by instructors)
Summary Description of Course Assignments and Classroom Learning Activities
This course will contain both in-class learning activities and pre-class assignments. Class recitations will involve a variety of activities designed to help students think about key course concepts. These activities will consist of case study discussions; analysis of operational, financial and HR scenarios; student presentations; and various problem-solving and decision-making activities for hypothetical situations. Successful completion of in-class course assignments will require adequate preparation. Preparation materials may include recorded mini-lectures, readings, videos, cases, etc. Instructors will provide students preparatory materials in advance of class (typically 1 week before recitation) and a checklist of what they should know and/or be able to do during the upcoming recitation session. It is the student’s responsibility to prepare themselves accordingly and to seek help from the instructor if necessary. It is anticipated that students will spend 3-4 hours per week outside of the classroom preparing for in-class recitations. Some assignments may need to be completed in advance of recitation and submitted to the instructor(s) as directed for that assignment. Each assignment will include instructions on how to submit (paper copy, upload to Canvas, etc.) Assignments submitted after due dates are subject to deduction of points and/or a grade of ‘zero’. Students missing an in-class activity will be ineligible to receive points for that activity, assignment, and/or quiz unless they meet the criteria for excused absences as outlined under the “Attendance” section of this syllabus. All assignments, quizzes, and exams will be graded as quickly as time permits (typically 1-4 days).

ASSESSMENT
- Final exam will be cumulative.
- Periodic quizzes will be used to assess comprehension of preparatory materials.
- Non-circulating exams and assignments may be viewed in class during exam reviews and anytime thereafter in an instructor's office (by appointment). Distribution of and/or possession of exams from previous semesters is strictly prohibited. Any violation of this will be handled according to the Honor Code.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>100</td>
</tr>
<tr>
<td>Exam 1</td>
<td>100</td>
</tr>
<tr>
<td>OSCE</td>
<td>100</td>
</tr>
<tr>
<td>Final Exam</td>
<td>100</td>
</tr>
<tr>
<td>Learning Activities</td>
<td>100</td>
</tr>
</tbody>
</table>
Grades

450-500 points = A
400-449 points = B
350-399 points = C
<350 points = E

- Students must receive a passing grade (>= 70) on the final to pass the course.
- Grades are determined solely on a points-earned basis and are not rounded.
- All grades will be posted in the Learning Management System (Canvas).
- All exam/course related grades and assessments are final after 14 days of posting.

Exam Schedule/Location/Times

- Exam 1 Date TBD Time TBD Room# TBD
- OSCE Date TBD Time TBD Room# TBD
- Final Exam Date TBD Time TBD Room# TBD

Exam Policies
Examinations that are missed without prior permission or notification to the course coordinator will be graded as a zero. If illness or other extreme circumstances force a student to be absent from an examination, the course coordinator must be contacted via phone or email prior to the scheduled exam time. Extreme circumstances (i.e. car crash on the way to the exam) will be handled on a case-by-case basis; significant documentation will be required in such circumstances in order to obtain the opportunity to take a make-up exam. Oral examinations or written papers may be required in the case of excused absences. **No additional time will be granted to students arriving late for an examination.** In the unlikely event of exam disruption due to fire alarms, tornado warnings, etc., there should be no discussion of examination materials. Course directors will determine how/when the remainder of the examination will be rendered. Course directors reserve the right to administer a different exam.

Exam seating is pre-assigned by the Office of Academic & Student Affairs. Students are responsible for sitting in their assigned seats. Leaving the classroom for any reason prior to completion of an exam requires instructor permission and may require accompaniment by an instructor or exam proctor. Permissible use of technology (laptops, tablets, calculators, phones, etc.) and other materials (scrap paper, etc.) will be announced prior to each exam. Violations of exam policies will be referred to the Honor Committee.

ExamSoft® Guidelines
ExamSoft software will be required on your mobile device. You will be expected to download assignments or exams, using the provided schedule, BEFORE the day of the exam, quiz, or assignment. Uploaded assignments or exams must be checked by the instructor or TA before you may leave the room. If this process is not followed, you may receive a zero (0) for the assignment or exam. Students
experiencing technical issues with ExamSoft should contact the UKCOP Academic Technology Support Specialist at johnpsmith@uky.edu.

COURSE POLICIES

Course Communication Policy
Communication from instructors will occur in class, through Canvas, and/or through email. The official UK email address will be used when sending email and students are expected to check their UK email regularly. Students should expect instructors to reply to email within 24 hours, but only during regular business hours. Problems with UK email accounts should be reported immediately to the UK IT Customer Service Center at 218-HELP. Individual concerns regarding the course should be directed to the instructors in person or via email.

All communications (including face-to-face and online) with course instructors and guests are expected to be professional.

Attendance Policy
The instructors believe that class attendance is important to successful academic achievement in the course and reflects the attitude required by pharmacists in professional settings. A substantial portion of the course grade will come from activities and quizzes within scheduled class meeting times. Students must be present in class at the time of the activity to receive credit. Unless it meets the requirement for “excused”, an absence during any of these announced and/or unannounced activities will preclude the student from obtaining those points. Students with proper excused absences may be required to complete oral and/or written assignments in substitution of the in-class activity.


Excused Absences:
Excused absences are defined as follows (see S.R.5.2.4.2 for detailed explanations)

- Serious illness
- Illness or death of family member
- University-related trips
- Major religious holidays
- Other circumstances which the instructor finds to be “reasonable cause for nonattendance.”

In all cases, the student bears the responsibility for notifying the instructor before the absence and for making up any missed work. With the exception of extreme circumstances, all excused absences must be received by one of the course directors in writing for prior approval. Acceptable written statements include physician’s notes, funeral announcements, etc. Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day for adding a class. Information regarding dates of major
religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (257-2754).

**Verification of Absences**
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.

**Tardiness:**
Students who arrive late to class should enter quietly and sit in the back of the classroom with as little disturbance as possible. Students who are habitually tardy (defined as 3 or more times) may be asked to meet with the instructor and are subject to point deductions from final grade.

**Academic Integrity**
Except in instances in which students are explicitly instructed to submit work done as a group, students are expected to work and submit material individually. Cheating and plagiarism will not be tolerated and will be prosecuted to the fullest extent of Honor Code and University regulations. It is up to each student to ensure that their own behavior during an examination / quiz is such that no doubt could possibly exist about their honesty and integrity. Course exams are not to be photocopied, photographed, or distributed in any manner to anyone outside of course enrollees. Possessing and/or using prior course exams is prohibited and will be considered a form of cheating. All examinations will be taken in accordance with the College of Pharmacy Honor Code which can be found at the following address:


Each student is directed to the Honor Code and should familiarize themselves with it.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: [http://www.uky.edu/Ombud](http://www.uky.edu/Ombud). A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Part II of *Student Rights and Responsibilities* (available online at [http://www.uky.edu/StudentAffairs/Code/part2.html](http://www.uky.edu/StudentAffairs/Code/part2.html)) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about the question of plagiarism involving their own work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate
acknowledgement of the fact, the students are guilty of plagiarism. Plagiarism includes reproducing someone else's work, whether it be a published article, chapter of a book, a paper from a friend or some file, or something similar to this. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be.

Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone. When a student’s assignment involves research in outside sources of information, the student must carefully acknowledge exactly what, where and how he/she employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain (Section 6.3.1).

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**

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 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.

**CLASSROOM BEHAVIOR POLICIES**

**Honor Code**

Students are required to adhere to the College of Pharmacy Honor Code, which can be found in the UKCOP Student Handbook at:


**Education Disruption**

Professional behavior on part of students is a requirement of this course. Disruptive behavior such as talking while the instructor is giving the lecture, disrespectful debate with the instructors (within or outside the classroom), repeatedly entering the classroom late, or any behavior that disrupts classmates and instructors (including but not limited to reading newspapers, using mobile computing devices for non-class related activities; using cell-phones in the classroom; sleeping during class meetings; attacks of a personal nature or statements or actions denigrating another on the basis of race, sex, religion, sexual orientation, age, national/regional origin, disability or other such factors) will not be tolerated.

Students identified by the instructor as disrupting the class will be asked to refrain from disrupting the class once (a warning) and a written warning letter will be submitted to the student and the College of Pharmacy Student Affairs Office. At each subsequent disruption,
the student(s) will be asked to leave the classroom and attend a meeting with the Associate Dean of Student Affairs to discuss the behavioral issue. Argumentative behavior will not be permitted and professional conduct is expected from all students.

Cell Phones
Unless directed by the instructor to use for educational purposes, cell phone use is not permitted in class. All cell phones should be placed in the "off or silent" position during class. If there is a situation in which a student might need to be notified during a class period, that student should notify the instructor before class starts, leave the phone on vibrate mode, and quietly leave the room if/when a call is received.

_Syllabus is subject to change with sufficient notice._

**Course Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Sub-topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pharmacist in charge/Regulatory</td>
<td>Legal and regulatory expectations of PIC</td>
</tr>
<tr>
<td>2</td>
<td>Human Resources</td>
<td>General HR principles and laws</td>
</tr>
<tr>
<td>3</td>
<td>Human Resources</td>
<td>Hiring &amp; Firing of Employees</td>
</tr>
<tr>
<td>4</td>
<td>Human Resources</td>
<td>Conflict Management</td>
</tr>
<tr>
<td>5</td>
<td>General Operations</td>
<td>Workflow and Organizational Structure</td>
</tr>
<tr>
<td>6</td>
<td>Operations</td>
<td>Purchasing &amp; Inventory</td>
</tr>
<tr>
<td>7</td>
<td>Operations</td>
<td>Market Analysis and Strategy</td>
</tr>
<tr>
<td>8</td>
<td>Operations &amp; <em>Midterm Exam</em></td>
<td>Non-traditional Organizations</td>
</tr>
<tr>
<td>9</td>
<td>Operational Finance</td>
<td>Insurance &amp; Reimbursements</td>
</tr>
<tr>
<td>10</td>
<td>Finance</td>
<td>General Accounting/Finance</td>
</tr>
<tr>
<td>11</td>
<td>Finance</td>
<td>Financial Analysis (Evaluating key indicators and interpreting financial statements)</td>
</tr>
<tr>
<td>12</td>
<td>Finance</td>
<td>Budgeting</td>
</tr>
<tr>
<td>13</td>
<td>Informatics</td>
<td>Basic informatics tools and procedures</td>
</tr>
<tr>
<td>14</td>
<td>Informatics</td>
<td>Use of informatics tools in decision-making</td>
</tr>
<tr>
<td>15</td>
<td>OSCE</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Finals</td>
<td></td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
<th>FALL</th>
<th>SPRING</th>
<th>FALL</th>
<th>SPRING</th>
<th>FALL</th>
<th>SPRING</th>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PY1</strong></td>
<td><strong>PY2</strong></td>
<td><strong>PY3</strong></td>
<td><strong>PY4</strong></td>
<td><strong>FALL/SPRING</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transitions in Pharmacy</td>
<td>IDD 1 (ID) 4 (PHR 926-001)</td>
<td>IDD 2 (Neuro) 4 (PHR 936-001)</td>
<td>IDD 3 (Cardio) 6 (PHR 946-001)</td>
<td>IDD 5 (Crit Care) 4 (PHR 966-001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cells &amp; Molecules 3 (PHR 911-001)</td>
<td>IDD 1 (GI/Nutr) 2 (PHR 927-001)</td>
<td>IDD 2 (Rheum) 2 (PHR 937-001)</td>
<td>IDD 3 (GU) 2 (PHR 947-001)</td>
<td>PTx Applications in Special Pops 3 (PHR 967-001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundations in Pharm Science I 3 (PHR 912-001)</td>
<td>Kinetics and Dynamics 4 (PHR 921-001)</td>
<td>IDD 2 (Endocrine) 4 (PHR 938-001)</td>
<td>IDD 3 (Pulm) 3 (PHR 948-001)</td>
<td>Operations &amp; Fin Mgmt 3 (PHR 964-001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wellness &amp; Health Promotion I 3 (PHR 913-001)</td>
<td>Foundations in Pharm Science II 3 (PHR 922-001)</td>
<td>Policy, Outcomes &amp; Public Health 3 (PHR 933-001)</td>
<td>Leadership in Pharmacy 3 (PHR 945-001)</td>
<td>EBM 1 (PHR 965-001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical Reasoning 2 (PHR 914-001)</td>
<td>Wellness &amp; Health Promotion II 3 (PHR 923-001)</td>
<td>Elective</td>
<td>Elective</td>
<td>Scholarship II 3 (PHR 961-001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pharmacy as a Profession 5 (PHR 915-001)</td>
<td>Elective</td>
<td>Elective</td>
<td>Elective</td>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PaCE 3 1</strong> (PHR 910-001)</td>
<td><strong>PaCE 3 2</strong> (PHR 920-001)</td>
<td><strong>IPPE I 2</strong> 2 weeks Amb PHR 928-001</td>
<td><strong>PaCE 3 3</strong> (PHR 930-001)</td>
<td><strong>PaCE 4 5</strong> (PHR 950-001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>PaCE 4 6</strong> (PHR 960-001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>19</td>
<td>16</td>
<td>17</td>
<td>17</td>
<td>18</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>