REQUEST FOR NEW COURSE

1. General Information.

a. Submitted by the College of: Pharmacy | Today's Date: 11/23/09

b. Department/Division: Pharmacy Practice & Science

c. Contact person name: Tamela Harper | Email: tjharp00@email.uky.edu | Phone: 257-9384

d. Requested Effective Date: ☐ Semester following approval | OR | ☒ Specific Term/Year[1]: Fall 2010

2. Designation and Description of Proposed Course.

a. Prefix and Number: PPS 704

b. Full Title: Pharmacy Informatics

c. Transcript Title (if full title is more than 40 characters): Pharm Informatics

d. To be Cross-Listed[2] with (Prefix and Number): N/A

e. Courses must be described by <u>at least one</u> of the meeting patterns below. Include number of actual contact hours[3] for each meeting pattern type.

2-3 Lecture	_____ Laboratory[1]	_____ Recitation	_____ Discussion	_____ Indep. Study
_____ Clinical	_____ Colloquium	_____ Practicum	_____ Research	_____ Residency
_____ Seminar	_____ Studio	_____ Other – Please explain:	_____	

f. Identify a grading system: ☒ Letter (A, B, C, etc.) ☐ Pass/Fail

g. Number of credits: 2-3

h. 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 ☒

i. Course Description for Bulletin: This course explores the theory and methods of measuring the performance and quality of pharmaceutical health outcomes emphasizing evidence-based practice and quality improvement approaches. Particularly, the course focuses on the use of data and information systems to measure quality, performance, and outcomes. Topics covered include designing and testing outcome based measures, measuring and evaluating satisfaction, measuring and evaluating treatment, risk adjustment, survey methods, patient records, encounter data, administrative data, claims data, and an assessment of the current outcome based standard National Committee on Quality Assurance, HEDIS 2009.

j. Prerequisites, if any: Graduate standing and permission of instructor.

k. Will this course also be offered through Distance Learning? YES[4] ☐ NO ☒

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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. Laboratory meeting, generally, represents 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.

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l.	Supplementary teaching component, if any:	☐ Community-Based Experience	☐ Service Learning	☐ Both
3.	**Will this course be taught off campus?**		YES ☐	NO ☒
4.	**Frequency of Course Offering.**			
a.	Course will be offered (check all that apply):	☒ Fall	☐ Spring	☐ Summer
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?**	15		
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:	It may be of interest to other students in areas of health policy or health services research or Dual degree Pharm.D. students._____		

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:	Ph.D. Pharmaceutical Outcomes & Policy; Pharm.D. Gateway certificate		
b.	Will this course be a new requirement[5] for ANY program?		YES ☐	NO ☒
	If YES[5], 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 include: (i) identification of additional assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See *SR 3.1.4.*)

b. ☐ The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from ***10.a*** above) are attached.

[5] In order to change a program, a program change form must also be submitted.

Proposal Contact Person Name: Jeffery Talbert Phone: 260-1960 Email: jeff.talbert@uky.edu

INSTRUCTIONS:
Identify the groups or individuals reviewing the proposal; note the date of approval; offer a contact person for each entry; and obtain signature of person authorized to report approval.

Internal College Approvals and Course Cross-listing Approvals:

Reviewing Group	Date Approved	Contact Person (name/phone/email)	Signature
Department Faculty	11-30-09	Jimmi Hatton / 323-0268 / jhatt1@email.uky.edu	
Graduate Program Committee	12-1-09	Robert Yokel / 257-4855 / ryokel@uky.edu	
College Graduate Faculty	12-23-09	Robert Yokel / 257-4855 / ryokel@uky.edu	
		/ /	
		/ /	

External-to-College Approvals:

Council	Date Approved	Signature	Approval of Revision[6]
Undergraduate Council			
Graduate Council			
Health Care Colleges Council	3/16/10		
Senate Council Approval		University Senate Approval	

Comments:

[6] Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.

PPS 704: Pharmacy Informatics: Evaluating Performance, Quality, and Outcomes

Fall Semester 2010
Wednesday 3:00-5:30pm
145 BioPharm

Graduate course [Section 001] 3:00-5:30pm
(3 credits; includes 2 exams, quizzes, weekly papers, class participation, and term project)
or
Gateway Program [Section 002] 3:00-5:00 p.m.
(2 credits; includes 2 exams, quizzes, class participation, and weekly papers)

Course Contact Information

Professor: Jeffery Talbert, Ph.D.
Associate Professor, Pharmacy Practice & Science
Office: UK College of Pharmacy, 185 BioPharm
Phone: 859-257-7141
Email: jtalb1@uky.edu

Office Hours: Tuesday 4:30-6:00, and by appointment

Required Course Texts

- Understanding Health Care Outcomes Research, 2nd ed. 2005. Robert L. Kane. ISBN 978-0763734411.
- Pharmacy Informatics Primer. 2009. Doina Dumitru. ISBN: 978-1585281664

Course Overview

This course explores the theory and methods of measuring the performance and quality of pharmaceutical health outcomes emphasizing evidence-based practice and quality improvement approaches. Given the industry focus on managed health systems, the use of outcomes based methodology has become the standard evaluation process for rating and comparing health outcomes. Particularly, the course focuses on the use of data and information systems to measure quality, performance, and outcomes. Topics covered include designing and testing outcome based measures, measuring and evaluating satisfaction, measuring and evaluating treatment, risk adjustment, survey methods, patient records, encounter data, administrative data, claims data, and an assessment of the current outcome based standard National Committee on Quality

Assurance, HEDIS 2009. This course involves weekly computer lab sections where we will practice the methods using Access, SAS, and Oracle database software.
The continual growth and increasing complexity of therapeutic information necessitate new ways for effectively handling medical data and ultimately providing better patient care. We discusses how these changes affect pharmacy students and practicing pharmacists, preparing them for what lies ahead in this evolving field.

Objectives:

After completing this course, students should be able to design and implement an evaluation of a pharmaceutical outcome, and use the evaluation to develop tools and techniques for making management decisions about new or existing programs and services. Students will learn the fundamentals of data integration and analysis using Oracle SQL, Access, and SAS.

Course Requirements:

Exams

There will be a midterm and a final examination over the assigned material. Each exam will be a combination of short/long essay questions.

Weekly Papers

Class participation and writing assignments will be organized as follows: each week, ALL students will be asked to prepare an outline of ½ to 1 page in length that addresses the concepts covered in the readings. These papers will be due the day of class. These outlines are for you to help organize the course, prepare for exams, and complete your final projects.

Term Project (Section 001 only)

Students will complete a term project. The project is a database design and analysis of a particular area of health outcomes research. EVERYONE will complete a database design/analysis using public domain datasets. The best projects are those that utilize some concepts from outcome research along with newly developed database skills to develop an information system that addresses the proposed measure. This is not a THEORY project; you will develop an actual outcome database and demonstrate it too the class during the last week of class.

During the lab exercises each week, students will present a discussion of their projects and provide an update on their progress.

Class Participation

Each class member is expected to fully participate in each class. Excused absences will be given only for university approved reasons. Unexcused absences will be assigned a grade of zero for the day(s) missed.

Quizzes

Each lab section will have a quiz covering material from the previous week. Quizzes will be a combination of course readings and computer skills. Students should ensure that they are at class on time, extra time to complete the quiz will not be granted. Unexcused absences will be assigned a grade of zero for the quiz missed.

Grading

Grades will be calculated according to the following formula:

Section 001:

Midterm exam----------25%
Final exam----------25%
Quizzes ----------15%
Term project----------30%
Class participation-------5%

Section 002:

Midterm exam----------35%
Final exam----------35%
Quizzes ----------20%
Class participation------10%

Final scores above 90% = A
above 80% = B
below 80% = C

Course Policies

Academic integrity, cheating, and plagiarism

Ethical behavior is expected of all students in the course. Each student in the class is expected to adhere to the highest standards of academic honesty. Cheating, plagiarism, and destruction of course materials violate the rules of the University and the ethical standards of professional behavior. Violations of the university's rules regarding academic honesty can lead to a failing grade in the course and expulsion from the

University. Instances of academic dishonesty will be reported to appropriate University officials as required by University rules and procedures. University of Kentucky Code of Student Rights and Responsibilities defines academic offenses and details procedures for dealing with them. The Code can be viewed electronically on the University's web site: http://www.uky.edu/StudentAffairs/Code/part1.html All students are expected to be familiar with the content of the Code of Student Rights and Responsibilities.
If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities.

Classroom Behavior should be in compliance with the student code of conduct. Full details can be viewed at: http://www.uky.edu/StudentAffairs/Code/part1.html. Consistent with this policy, student behavior that detracts from the educational environment will not be tolerated. Examples of inappropriate behaviors include engaging in disrespectful debate, holding disruptive discussions with fellow classmates, reading newspapers or playing electronic games during class, receiving phone calls in the classroom, or sleeping. Disruptive students will be asked to leave the classroom and will receive a zero for participation points that day.

Cell Phone Policy

Generally cell phone use is not permitted in class for any reason. All cell phones must be placed in the "off" position during class. If there is a situation where a student might need to be notified during a class period, please alert the instructor to this potential and carefully monitor your phone.

Student preparedness, group work and collaboration

Except in those instances where 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 in this course. It is the expectation of the instructor of this course that students will not cheat, plagiarize, or attempt to gain unfair advantage, and will report any incident(s) to appropriate faculty if they become aware of such activity. When working with a group or collaborative effort, equal participation is expected of each member. Each group assignment will require an attestation of each group member's contributions to the group work attached to the returned document.

Attendance

Regular and timely class attendance is critical to success in this course. The course coordinator without prior notice of any kind will monitor attendance. Students with

excused absences defined by the University Senate section 5.2.4.2 http://www.uky.edu/StudentAffairs/Code/part2.html will not be penalized for the missed coursework but may be required to complete missed activities. All absences must be **directly** reported to and approved by the course coordinator. The right to request appropriate verification is reserved. Unexcused absences will directly affect the final grade for this course. In the event of an unanticipated University closing all classes will be cancelled and the coursework made up during the remaining time in the semester. Missed assessments or laboratory exercise of any kind without notification or in the light of an unexcused absence will be graded as zero. In all cases, it is the responsibility of the student to procure any missed work including handouts. Students should not expect to be provided a handout if they are not in class.

All decisions regarding excused and unexcused attendance of any kind shall be at the final discretion of the course coordinator.

Verification of Absence

Students missing work due to an excused absence bear the responsibility of informing the instructor about their excused absence within one week following the period of the excused absence (except where prior notification is required), and of making up the missed work. The instructor shall give the student an opportunity to make up the work and/or the exams missed due to an excused absence, and shall do so, if feasible, during the semester in which the absence occurred. (US: 11/10/85 and RC: 11/20/87)

Make-up Work Policy

Make-up work will be allowed only in the event of death in the immediate family or student illness accompanied by proof of physician visitation. All work must be made-up within one class period after returning to school. A grade of zero will be placed on all work missed or not completed within the specified time frame.

Assignments Graded Incorrectly

All assignments will be evaluated and returned. Any assignment graded incorrectly must be brought to the attention of the course director within one calendar week of the assignment being returned. One calendar week after returned, all grades become final and no corrections will be made.

COURSE OUTLINE

Date	Topic	Assignment
August 25, 2010	Introduction to course	Activation of computer accounts
September 1, 2010	Introduction to outcome research Access Part 1	Kane Chapters 1-2
September 8, 2010	Measuring outcomes-condition specific and satisfaction Access Part 2	Kane Chapters 3-4
September 15, 2010	Treatment Access Part 3	Kane Chapter 5
September 22, 2010	Risk Adjustment SAS Part 1	Kane Chapters 6-8
September 29, 2010	Technical Measurement SAS Part 2	Kane Chapters 9-10
October 6, 2010	Performance Measurement in Public Programs SAS Part 3	Perrin Chapters 1-3
October 13, 2010	Data Issues for Public Programs, and Strategies for Success SAS Part 4	Perrin Chapters 4-5
October 20, 2010	**Midterm Exam**	
October 27, 2010	Oracle Introduction to PL-SQL Part One Writing Basic SQL Statements, Restricting And Sorting Data	Course Pack Section 1
November 3, 2010	Oracle Introduction to PL-SQL Part Two Single Row Functions, Displaying Data From Multiple Tables.	Course Pack Section 2
November 10, 2010	Oracle Introduction to PL-SQL Part Three Aggregating Data Using Group Functions, Subquerries	Course Pack Section 3
November 17, 2010	Oracle Introduction to PL-SQL Part Four	Course Pack Section 4

	Multiple-Column Subquerries, Producing Formatted Output With SQL-Plus.	
November 24, 2010	Thanksgiving Holiday- No class	
December 1, 2010	Oracle Introduction to PL-SQL Part Five Manipulating Data—DML, Creating And Managing Tables, Using Constraints, Creating Views, Controlling Access.	Course Pack Section 5
December 8, 2010	SQL Workshop	**Projects Due- Course Presentations**
December 15, 2010	**Final Exam**	