REQUEST FOR NEW COURSE

1.	General Information.					
a.	Submitted by the College of: Pharmacy Today's Date: 11/23/2009					
b.	Department/Division: Pharmaceutical Sciences					
c.	Contact person name: Catina Ro	ssoll	Email:	cross2@.uky.ed	u Phone:	: 257.1998
d.	Requested Effective Date: Se	emester follo	wing approval	OR Specific	Term/Year ¹ :	
2.	Designation and Description of Proposed Course.					
a.	Prefix and Number: PHS 663					
b.	Full Title: Molecular Neurobiology of Abused Drugs					
c.	Transcript Title (if full title is more than 40 characters): N/A					
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.					
	3 Lecture Labo	ratory ¹	Recitation	n Dis	cussion _	Indep. Study
	Clinical Collo	quium _	Practicum	n Re	search	Residency
	Seminar Studio Other – Please explain:					
f.	Identify a grading system:					
g.	Number of credits: 3					
h.	Is this course repeatable for additional credit?					□ NO ⊠
	If YES: Maximum number of credit hours:					
	If YES: Will this course allow multiple registrations during the same semester?				NO	
i.	This course is designed to review major topics, concepts and issues pertinent to the molecular neurobiology of drug abuse and dependence. The proposed course Description for Bulletin: will provide a strong background in neuroscience and students will be informed about current trends in our understanding of the molecular neurobiology of drug abuse research.					The proposed ence and students
j.	Prerequisites, if any: IBS 601 or consent of instructor					
k.	Will this course also be offered through Distance Learning?				⁴ □ NO ⊠	
I.	Supplementary teaching compone	Supplementary teaching component, if any: Community-Based Experience Service Learning Both				Learning Both
3.	Will this course be taught off cam	Will this course be taught off campus? YES □ NO ☑				□ NO ⊠
4.	Frequency of Course Offering.					

¹ Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.

The chair of the cross-listing department must sign off on the Signature Routing Log.

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.

REQUEST FOR NEW COURSE

a.	Course will be offe	red (check all that apply):	☐ Fall	Spring	☐ Sui	mmer	
b.	Will the course be offered every year? YES ☐ NO ☒					ио ⊠	
	If NO, explain: There are not enough graduate students in this focused discipline to offer each year.					year.	
5.	Are facilities and personnel necessary for the proposed new course available?					NO 🗌	
	If NO, explain: _						
6.	What enrollment (per section per semester) may reasonably be expected? 8-10						
7.	Anticipated Stude	nt Demand.					
a.	Will this course serve students primarily within the degree program? YES NO					NO 🗌	
b.	Will it be of interes	st to a significant number o	f students outside t	he degree pgm?		YES 🛚	NO 🗌
	If YES, explain: Students across numerous departments - Biochemistry, Psychology, Behavioral Neuroscience, Toxicology, Pharmacology, Anatomy and Pharmaceutical Sciences will be interested in this course because the field of drug abuse crosses all of these disciplines.						
8.	Check the categor	y most applicable to this co	ourse:				
	☐ 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?				NO 🖂		
	If YES, name the proposed new program:						
b.	Will this course be	a new requirement ⁵ for AN	NY program?			YES 🗌	NO 🖂
	If YES ⁵ , list affected programs:						
10.	Information to be Placed on Syllabus.						
a.	Is the course 400G or 500?				NO 🖂		
	10.b. You must inc	tiation for undergraduate a lude: (i) identification of ac ifferent grading criteria in t	dditional assignmer	its by the graduate	e student:	s; and/or (
b.	1 × 1	, including course description differentiation if applicable	137.0	50) (7)	rading po	licies (and	400G-/500-

Rev 8/09

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

REQUEST FOR NEW COURSE

Signature Routing Log

General Information:

Course Prefix and Number:

PHS 663 .

Proposal Contact Person Name:

Catina Rossoll

Phone: 257.1998

Email: cross2@email.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	11.24-09	Patrick McNamara / 257.8656 / pmcnamar@email.uky.edu	Moderno
Graduate Program Committee	N-29-U9	Robert Yokel / 257.4855 / ryokel@email.uky.edu	V falked
Graduate Program Faculty	11-23-09	Robert Yokel / 257.4855 / ryokel@email.uky.edu	Defress 1
Today 1 - Marking and Marking		/ /	

External-to-College Approvals:

Council	Date Approved	Signature	Approval Revision
Undergraduate Council			
Graduate Council			
Health Care Colleges Council	3/16/10	Mili Mafele	
Senate Council Approval		University Senate Approval	

Rev 8/09

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

PHS 663: Molecular Neurobiology of Abused Drugs (3 credits) Spring Semester, 2010

Syllabus

Class meetings:

This course meets once per week for 2.5 hrs (Thursday, 3:00-5:30 pm) Location (BPC 170)

<u>Coordinator</u>: <u>Office</u> <u>Telephone</u> <u>Email</u>

Linda P. Dwoskin B343 BBSRB 257-4743 Idwoskin@email.uky.edu

Dr. Dwoskin will organize the schedule of topics, deliver lectures, assign readings, grade term papers and assign grades for PHR 760-008.

Instructors:

Other PHR 760 Faculty	Office	Phone	Email
Bardo, Michael T.	B447 BBSRB	257-6456	mbardo@email.uky.edu
Barron, Susan	208 Kastle Hall	257-5401	sbarron@uky.edu
Crooks, Peter	501B Col Pharmacy Bldg	257-1718	pcrooks@uky.edu
Dwoskin, Linda	B343 BBSRB	257-4743	ldwoskin@uky.edu
Gerhardt, Greg	311 Whitney-Hendrickson Facility	323-4531	gregg@uky.edu
Hersh, Louis B.	B283 BBSRB	323-5549	lhersh@uky.edu
Littleton, John M.	122 Kentucky Tobacco Res Dev Ctr	257-1085	john.littleton@uky.edu
Middleton, Lisa	515 Oldham Court	323-3106	lisa.middleton@uky.edu
Pauly, Jim	B451 BBSRB	323-8164	jpauly@uky.edu
Pentel, Paul	Guest Lecturer		
Rodgers, David W.	B269 BBSRB	257-5205	david.rodgers@uky.edu
Saccone, Nancy L	Guest Lecturer		
Stinchcomb, Audra	459 Wethington Bldg	323-6192	astin2@email.uky.edu
Walsh, Sharon	643 Maxwelton Court	323-6126	sharon.walsh@uky.edu
Zhan, Chang-Guo	B355 BBSRB	323-3943	czhan6@email.uky.edu

Faculty will give lectures, assign readings, evaluate class discussions and grade term papers.

Objectives:

- 1. Introduce students to major concepts and issues of general importance with respect to the molecular neurobiology of drug abuse and dependence.
- 2. Enable students to interpret and evaluate research findings from different disciplines and/or levels of analysis.
- 3. Enhance appreciation for multidisciplinary efforts in drug abuse and dependence research.
- 4. Enhance interdisciplinary communication skills.

PHS 663 BPC 170 Thur 3:00-5:30 pm

Course Description:

This course is designed to review and discuss major topics, concepts and issues pertinent to the molecular neurobiology of drug abuse and dependence. The course will consist of weekly presentations (90 min) by faculty and open discussions (60 min) led by class members regarding assigned readings (primary literature articles and reviews) of relevance to the faculty presentation. Active participation by all class members is expected. Each weekly faculty presentation is designed to provide a general overview of the current state of knowledge (e.g., theory, methods, ethics, and review of classic and/or exemplary studies) in a given area of drug abuse and dependence research. Student-led open discussions will review recent literature on the topic assigned by the faculty member. Discussions are intended to integrate the information across traditional disciplinary boundaries, i.e., Anatomy, Behavioral Sciences, Biology, Biochemistry, Immunology, Pharmacology, Physiology, Psychology and Toxicology. A term paper, which is focused on recently reported research findings in drug abuse and dependence, will be written by each student on a topic of the student's choice and approved by the course director. The term paper will be the student's critique and interpretation of new findings from a recent primary research article within the context of the currently accepted understanding of the topic. The course of study will provide a strong background in neuroscience and students will be informed about current trends in the molecular neurobiology of drug abuse research.

Prerequisites:

This course is an introductory graduate level course intended for students pursuing focused research training in one or more areas of drug abuse and dependence. Enrollment in IBS 601 or consent of the instructor is required.

Readings:

There is no textbook for this course. Assigned readings will be accessible via Pubmed and will be assigned the week prior to their discussion.

Course Expectations:

- Attendance and participation in class discussions. Due to the nature of this course, there is
 no substitute for attendance and participation in class discussions. The course director must
 be notified regarding excused absences prior to class. Students will be expected to
 compensate for both excused and unexcused absences in consultation with relevant faculty
 members and the course director.
- Command of assigned readings. Because the course is designed to promote discussion of interdisciplinary research publications, students have a responsibility to the class as a whole to be prepared for discussion of assigned readings (1-2 papers provided the week prior to the class discussion).
- 3. Regarding leadership of assigned class discussions, students will take the responsibility to coordinate class discussions on assigned literature (1-2 papers) during at least one class meeting of the semester. As discussion leaders, it will be the student's responsibility to stimulate productive discussion related to the assigned literature. Faculty will select the literature to be discussed for the scheduled session. It is expected that the discussion topics will integrate information across disciplines.
- 4. Regarding the term paper, each student will write a term paper on a topic of the student's choice, approved by the course director, and focused on recently-reported primary research publication from the literature in the drug abuse and dependence field. The term paper will be the student's critique and interpretation of new findings from a recent primary research article within the context of the currently accepted understanding of the topic. It is expected that the term paper will integrate the new findings within the larger discipline. The topic of the term paper should be chosen in consultation with the course director. It is the responsibility of the student to contact the course director well in advance for consultation to review the literature options.

Academic Honesty / Penalties:

Academic honesty is the cornerstone upon which scientific research and scholarship are based. Experimental discoveries and new scientific insights are built upon a foundation formed by the work and thoughts of others. Thus, utilizing such thoughts in a paper or manuscript, without giving credit to the originator of the idea or result, is dishonest. Such dishonesty is termed *plagiarism*, and is considered an extremely serious offense by the graduate program, the University of Kentucky, and the academic community throughout the world. The penalties for plagiarism are grave, and can range from a zero for an assignment, to an E (failure) in a course, and, in grievous instances, suspension, dismissal or expulsion from the graduate program and university. The official university list of definitions (Senate Rule 6.3.1), and penalties (Senate Rule 6.4.3(3)) is available at: http://www.uky.edu/USC/New/SenateRulesMain.htm

In addition, scientific journals demand a high standard of honesty and fair credit for previous publications in manuscripts that are submitted for review. The journals published by the American Association of Pharmaceutical Scientists have developed an Ethics Policy that covers plagiarism, improper manipulation of images, data fabrication or falsification, and other serious breaches of scientific conduct. This information is available at: http://www.aapsj.org/about/AAPS-ethicspolicy-2007.pdf. The American Chemical Society and

its associated journals also have ethical guidelines that can be found at: http://pubs.acs.org/userimages/ContentEditor/1218054468605/ethics.pdf.

Students should familiarize themselves with what constitutes plagiarism, especially in writing manuscripts for the primary literature and their dissertations. Practices that are accepted in other cultures may be considered serious offenses in the United States. The University Academic Ombud Office has additional resources at: http://www.uky.edu/Ombud/policies.php and a link to an excellent pa-per, "Plagiarism: What is it?" at http://www.uky.edu/Ombud/Plagiarism.pdf.

The "cure" for plagiarism is general and simple- writers must include an immediate citation in the text, to indicate where the information originated, or, if phrases are used verbatim, quotation marks in addition to a citation. To quote Dr. Leggas, "...err on the side of caution – i.e., Don't hesitate to give credit where credit is due – nobody will blame you for knowing and referencing the literature!"

Grades:

Grades will be determined by a combination of leadership of assigned discussions, term paper and class participation.

	<u>points</u>
Discussion Leadership	200
Term paper	200
Class Participation	<u>100</u>
	500

The course will be graded on the basis of 500 total points. Final letter grades will be assigned by Dr. Dwoskin. The approximate grading scale is outlined below; however, the scale may be adjusted, according to class performance.

Student evaluations of the course are welcome at any time and will be specifically solicited at the end of the course.

Letter Grade	<u>Total Points</u>
Α	500 – 400
В	399 – 300
С	299 – 200
E	199 & below

Schedule of Topics:

Orientation (Dwoskin)
Drug disposition: Pharmacokinetic concepts relevant to abused drugs (Stinchcomb)
Neuropathogenesis of drugs of abuse (Gerhardt)
Drug abuse during neural development – prenatal and adolescent alcohol (Barron)
Molecular and cellular mechanisms/adaptations of alcohol abuse and development of novel pharmacotherapies (Littleton)
Molecular and cellular mechanisms/adaptations of cocaine abuse and development of novel pharmacotherapies: (Bardo)
Molecular and cellular mechanisms/adaptations of psychostimulant abuse and development of novel pharmacotherapies: methamphetamine (Dwoskin)
Modeling and structural contributions: cocaine (Zhan)
Opiate receptors and their natural ligands (Hersh)
Modeling and structural contributions: opioids (Rodgers)
Spring Break (March 15-19) No class
Molecular and cellular mechanisms/adaptations to prescription drug abuse (Walsh)
Drug abuse during neural development – prenatal and adolescent nicotine (Pauly)
Genome-wide association, single nucleotide polymorphisms and application to nicotine dependence. (Saccone)
Molecular and cellular mechanisms/adaptations of psychostimulant abuse and development of novel pharmacotherapies: nicotine (Crooks)
Vaccines for the treatment or prevention of drug addiction (Pentel)
Molecular and cellular mechanisms/adaptations of cannabinoids abuse and development of novel pharmacotherapies (Middleton)
Term papers due