REQUEST FOR NEW COURSE

1. General Information.
   a. Submitted by the College of: Pharmacy
   b. Department/Division: Pharmaceutical Sciences
   c. Contact person name: Catina Rossoll
   d. Requested Effective Date: ☑ Semester following approval OR ☐ Specific Term/Year:
   e. Transcript Title (if full title is more than 40 characters): N/A
   f. Title: Molecular Neurobiology of Abused Drugs
   g. To be Cross-Listed with [Prefix and Number]: N/A
   h. Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours for each meeting pattern type.

   3 Lecture _______ Laboratory¹ _______ Recitation _______ Discussion _______ Indep. Study
   _______ Clinical _______ Colloquium _______ Practicum _______ Research _______ Residency
   _______ Seminar _______ Studio _______ Other – Please explain: _______
   i. Identify a grading system: ☑ Letter (A, B, C, etc.) ☐ Pass/Fail
   j. Number of credits: 3
   k. Is this course repeatable for additional credit? YES ☐ NO ☑
      If YES: Maximum number of credit hours: _______
   l. Is this course allow multiple registrations during the same semester? YES ☐ NO ☑
   m. Prerequisites, if any: IBS 601 or consent of instructor
   n. Will this course also be offered through Distance Learning? YES ☑ NO ☐
   o. Supplementary teaching component, if any: ☐ Community-Based Experience ☐ Service Learning ☐ Both

2. Designation and Description of Proposed Course.

3. Will this course be taught off campus? YES ☑ 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.
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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REQUEST FOR NEW COURSE

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: There are not enough graduate students in this focused discipline to offer each year.

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?  8-10

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 program?  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 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\(5\) 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.

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

Rev 8/19
REQUEST FOR NEW COURSE

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:

<table>
<thead>
<tr>
<th>Reviewing Group</th>
<th>Date Approved</th>
<th>Contact Person (name/phone/email)</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department Faculty</td>
<td>11-24-09</td>
<td>Patrick McNamara / 257.8656 / <a href="mailto:pmcnamar@email.uky.edu">pmcnamar@email.uky.edu</a></td>
<td>[Signature]</td>
</tr>
<tr>
<td>Graduate Program Committee</td>
<td>8-29-09</td>
<td>Robert Yokel / 257.4855 / <a href="mailto:ryokel@email.uky.edu">ryokel@email.uky.edu</a></td>
<td>[Signature]</td>
</tr>
<tr>
<td>Graduate Program Faculty</td>
<td>11-23-09</td>
<td>Robert Yokel / 257.4855 / <a href="mailto:ryokel@email.uky.edu">ryokel@email.uky.edu</a></td>
<td>[Signature]</td>
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</table>

External-to-College Approvals:

| Council                    | Date Approved | Signature | Approval of Revision
<table>
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<tr>
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<td>Undergraduate Council</td>
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<td>Graduate Council</td>
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<tr>
<td>Health Care Colleges Council</td>
<td>3/18/10</td>
<td>[Signature]</td>
<td>University Senate Approval</td>
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<tr>
<td>Senate Council Approval</td>
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Comments:

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*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)

Coordinator:          Office       Telephone       Email
Linda P. Dwoskin     B343 BBSRB    257-4743       ldwoskin@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:

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

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.
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:
1. 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.
2. 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 paper, "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.

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<thead>
<tr>
<th>points</th>
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<td>Discussion Leadership</td>
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<td>Term paper</td>
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<td>Class Participation</td>
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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.
<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Total Points</th>
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<tbody>
<tr>
<td>A</td>
<td>500 – 400</td>
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<tr>
<td>B</td>
<td>399 – 300</td>
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<td>C</td>
<td>299 – 200</td>
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<tr>
<td>E</td>
<td>199 &amp; below</td>
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</tbody>
</table>
Schedule of Topics:
Jan 14    Orientation (Dwoskin)
          Drug disposition: Pharmacokinetic concepts relevant to abused drugs (Stinchcomb)
Jan 21    Neuropathogenesis of drugs of abuse (Gerhardt)
Jan 28    Drug abuse during neural development – prenatal and adolescent alcohol (Barron)
Feb 4     Molecular and cellular mechanisms/adaptations of alcohol abuse and
development of novel pharmacotherapies (Littleton)
Feb 11    Molecular and cellular mechanisms/adaptations of cocaine abuse and
development of novel pharmacotherapies: (Bardo)
Feb 18    Molecular and cellular mechanisms/adaptations of psychostimulant abuse
          and development of novel pharmacotherapies: methamphetamine (Dwoskin)
Feb 25    Modeling and structural contributions: cocaine (Zhan)
March 4   Opiate receptors and their natural ligands (Hersh)
March 11  Modeling and structural contributions: opioids (Rodgers)
March 18  Spring Break (March 15-19) No class
March 25  Molecular and cellular mechanisms/adaptations to prescription drug abuse
          (Walsh)
April 1   Drug abuse during neural development – prenatal and adolescent nicotine
          (Pauly)
April 8   Genome-wide association, single nucleotide polymorphisms and
          application to nicotine dependence. (Saccone)
April 15  Molecular and cellular mechanisms/adaptations of psychostimulant abuse
          and development of novel pharmacotherapies: nicotine (Crooks)
April 22  Vaccines for the treatment or prevention of drug addiction (Pentel)
April 29  Molecular and cellular mechanisms/adaptations of cannabinoids abuse
          and development of novel pharmacotherapies (Middleton)
May 6    Term papers due