Wilkes University Curriculum Committee
PROPOSAL SUBMITTAL FORM

Directions:

- Use this set of forms for all proposals sent to the Curriculum Committee.
- Pages 1-3 of this document are required. Any unnecessary forms should be deleted from the packet before submissions. If multiple forms are needed (course addition, course deletion, etc), simply copy and paste additional forms into this packet.
- Note that all new programs (majors and minors), program eliminations, significant program revisions and all general education core revisions must be reviewed and approved by the Provost and Academic Planning Committee (APC) prior to submission to the Curriculum Committee. The Provost will make the decision if a program revision requires APC review.
- Completed and signed forms are due no later than the second Tuesday of every month. Submit one signed original hard copy and a scanned electronic copy with all signatures to the Chair of the Curriculum Committee.

1. Originator: Name  Dr. Zbigniew Witczak
   Department  Pharmaceutical Sciences
   Phone and email  4276  zbigniew.witczak@wilkes.edu

2. Proposal Title:  Neuropharmacology of Drug Abuse

3. Check only one type of proposal: (double click on the appropriate check box and change default value to "checked"). Each different type of proposal must be submitted on a separate form.
   - □ New Program. (Major or Minor Degree Programs).  This requires prior review and approval by the Provost and APC. Major = minimum of 30 credits, minor = minimum of 18 credits.
   - □ New Concentration, Track, or Certificate. The Provost determines if review and approval by APC is necessary. Concentration – minimum of 12 credits, certification, endorsement and track are discipline specific.
   - □ Elimination of Program. (Major or Minor Degree Programs).  This requires prior review and approval by the Provost and APC.
   - □ Elimination of Concentration, Track, or Certificate.  The Provost determines if review and approval by APC is necessary.
   - □ Program Revision. Significant revisions to a program require review and approval by the Provost.  The Provost determines if review and approval by APC is necessary.
   - □ General Education Revision. Submissions only accepted from the General Education Committee (GEC). Must be reviewed and approved by the Provost.
   - □ Creation of new departments, elimination of existing department.  This requires prior review and approval by the Provost and APC.
   - □ Course additions or deletions not affecting programs (such as elective courses, transition of “topics” courses to permanent courses).
   - □ Change in course credit or classroom hours.
   - □ Incidental Changes. Includes changes in course/program title, course descriptions, and course prerequisites. (Although these changes do require approval by the Curriculum Committee, they do not go before the full faculty for approval).
   - □ Other (Specify)

Indicate the number of course modification forms that apply to this proposal:
   □  Course Addition Form (Attach Syllabi: refer to Faculty Handbook for requirements)
   □  Course Deletion Form
   X  Course Change Form

Revised 4/30/2018
4. Executive Summary of Proposal.

Briefly summarize this proposal. The breadth and depth of this executive summary should reflect the complexity and significance of the proposal. Include an overview of the proposal, background and reasoning behind the proposal and a description of how the proposal relates to the mission and strategic long-range plan of the unit and/or university. For incidental changes a one or two sentence explanation is adequate.

Change of Pre-Requisite to open up elective to both second and third year Pharmacy students.

5. Other specific information. (Not applicable for incidental changes.)

What other programs, if any, will be affected by this proposal? Describe what resources are available for this proposal. Are they adequate? What would be the effect on the curriculum of all potentially affected programs if this proposal were adopted? Include any potential effects to the curriculum of current programs, departments and courses.

N/A

6. Program Outline. (Not applicable for incidental changes).

A semester-by-semester program outline as it would appear in the bulletin for a new program or any modified program with all changes clearly indicated.

N/A

7. New Program Assessments: (For new programs ONLY)

All new major programs reviewed through the Curriculum Committee must complete this section. Please consult the following page for guidance in developing an assessment plan: https://wilkes.edu/about-wilkes/university-committees/assessment/assessment-planning.aspx

a. Please list program-level student learning outcomes (SLOs) that all program majors should be able to demonstrate upon graduation from the program. SLOs should be worded such that student performance can be measured directly.

N/A

b. Please briefly describe current plans for how student performance on each program-level SLO will be assessed. Be sure to answer where (which courses), when (frequency), and how (assessment method) for each SLO.

N/A

c. Please identify by name any external accreditation agency or agencies that will influence assessment planning. Include standards or requirements from that accreditor that must be followed when developing the program’s assessment plan. You are encouraged to share specific, current web links to relevant content when standards or requirements related to assessment are substantial.

N/A

Revised 4/17/2018
8. Signatures and Recommendations. (please date)
- Signatures of involved Department chair(s) and Dean(s) indicate agreement with the proposal and that adequate resources (library, faculty, technology) are available to support proposal.
- If a potential signatory disagrees with a proposal he/she should write “I disagree with this proposal” and a signed statement should be attached to this submission.

Dr. Zbigniew Witzak
Print Name/Title: PROFESSOR & CHAIR
Department chair(s) of all potentially affected programs

Print Name/Title: Dean Scott Stolte
Signature: [Signature]
Date: 3/21/19
Dean (s) of any potentially affected College/School.

Print Name/Title: Susan Hritzak
Signature: [Signature]
Date: 3/21/19
Registrar

Print Name: [Signature]
Signature: [Signature]
Date: [Date]
Provost (For new programs, significant revisions and revisions to the General Education Program revisions only).
Provost should check here _____ if this proposal is a program revision AND the significance of the revision requires review and approval by APC prior to Curriculum Committee.

Print Name: [Signature]
Signature: [Signature]
Date: [Date]
Chair, Academic Planning Committee. For new programs, program revisions sent via the provost. Signature indicates that the proposal has been reviewed and approved by APC.

Print Name: [Signature]
Signature: [Signature]
Date: [Date]
Chair, General Education Committee. For revisions to General Education program only. (Signature indicates that the proposal has been approved by GEC).

Revised 4/17/2018
1. Course Title: Official title for course – as opposed to the popular title

2. Course Number: ____________________________
   Coordinate with Registrar to insure course number is available

3. Course Credits: _____
   Classroom Hours _____ Lab Hours _____ Other _____

4. Course Pre-requisites:

5. Course Co-requisites:

6. Effective Date of Addition (semester/year) ____________________________

7. Course Description (as proposed for the Bulletin): Course descriptions provide an overview of the topics covered. If the course is offered on a scheduled basis, i.e. every other year, or only during a set semester, note this in the description. Course descriptions should be no more than two to three sentences in length.

8. Required Documentation:
   Proposed Syllabus Attach proposed syllabi immediately after this document. In some situations the official syllabus may contain information which is beyond the review needs of the Curriculum Committee (such as extensive rubrics, etc). It is permissible to attach an abbreviated syllabus. In general, syllabi (whether full or abbreviated) should contain the following information: Course Title, Course Number, Credit hours, Faculty Information (name contact information, office hours), Course Description, Course Outcomes or Objectives, Assessment (grading) informations, required texts (or other things such as tools, software, etc), pertinent policies and a proposed schedule of topics.

Revised 4/17/2018
Wilkes University Curriculum Committee
COURSE DELETION FORM

1. Course Title:  **Official title as listed in the most current University Bulletin**

2. Course Number:  **As listed in the most current University Bulletin**

3. Course Credit Hours:  **As listed in the most current University Bulletin**

   Classroom Hours_______  Lab Hours_______  Other_______

4. Effective date of course deletion (semester/year) __________________________

Revised 4/17/2018
Wilkes University Curriculum Committee  
COURSE CHANGE FORM

Directions: Use this form to change information relating to an existing course. Please note, changes to course number require separate course addition/deletion forms (not this form). Only indicate changes that are proposed (existing and proposed), other fields should be left blank.

**Course Number:** PHA 450  
**Course Title:** Neuropharmacology of Drug Abuse  

**Effective Date of Course Change (semester/year):** FALL 2019

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Existing</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Title</strong></td>
<td>PHA 450A</td>
<td>PHA 450A</td>
</tr>
<tr>
<td><strong>Course Credit hours.</strong> (Indicate classroom, lab or “other” hours.)</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
| **Course Prerequisites** | PHA 421 | Remove PHA 421  
| | | Change to P-2 or P-3 standing |
| **Course Description (as proposed for Bulletin)** | **PHA-450. Neuropharmacology of Drugs of Abuse**  
Credits: 3  
In-depth analysis of drugs of abuse, including pharmacokinetics, pharmacodynamics, tolerance, sensitization, physical dependence, and effects of drug use during pregnancy. Drug testing and substance abuse treatment strategies will also be discussed. Lecture: three hours. | **PHA-450. Neuropharmacology of Drugs of Abuse**  
Credits: 3  
In-depth analysis of drugs of abuse, including medicinal chemistry, pharmacokinetics, pharmacodynamics, sensitization, and long term effects of drug use during pregnancy. Scientific backgrounds of drug testing and substance abuse treatment strategies will also be discussed. Lecture: three hours. |

Revised 4/17/2018
Nesbitt School of Pharmacy
Wilkes University

Department of Pharmaceutical Sciences

PHA 450
Neuropharmacology of Drug Abuse

Fall 2019

Syllabus

Instructor:
Dr. Zbigniew J. Witczak (Coordinator)  Email: zbigniew.witczak@wilkes.edu
Course Title: Neuropharmacology of Drugs of Abuse

Course Number: PHA 450

Course Credits: 3

Course Prerequisites: P-2 or P-3 standing

Class Location / SLC to be announced

Time: Tues./Thurs. 9:30 AM – 10:45 AM

Course Description:

As stated by Katzung (2000), "Pharmacology can be defined as the study of substances that interact with living systems through chemical processes, especially by binding to regulatory molecules and activating or inhibiting normal body processes." Neuropharmacology is the sub-discipline placing emphasis on drug interactions with the nervous system. The aim of this course is to review the pharmacological principles, behavioral paradigms, mechanisms of drug action and biochemical processes relevant to psychoactive drugs, those altering mood, thought processes and/or behavior as well as the Psychotropic drugs used in the treatment of mental illnesses. The focus will be directed towards drugs that are used recreationally or have a high liability for abuse. The materials emphasize the history of drug use, molecular mechanisms of action, medicinal chemistry, and both physiological and psychological effects.

Educational Outcomes:

Domain 1 – Foundational Knowledge
1.1 Learner 1.1. Learner (Learner) - Develop, integrate, and apply knowledge from the foundational sciences (i.e., pharmaceutical, social/behavioral/administrative, and clinical sciences) to evaluate the scientific literature, explain drug action, solve therapeutic problems, and advance population health and patient centered care.
   1.1.1. Develop and demonstrate depth and breadth of knowledge in pharmaceutical, social/behavioral/administrative, and clinical sciences.
   1.1.2. Articulate how knowledge in foundational sciences is integral to clinical reasoning; evaluation of future advances in medicine; supporting health and wellness initiatives; and delivery of contemporary pharmacy services.
   1.1.3. Integrate knowledge from foundational sciences to explain how specific drugs or drug classes work and evaluate their potential value in individuals and populations.
   1.1.6. Identify and critically analyze emerging theories, information, and technologies that may impact patient-centered and population based care.

Domain 3 – Approach to Practice and Care
3.1 Problem Solving (Problem Solver) – Identify problems; explore and prioritize potential strategies; and design, implement, and evaluate viable solution
   3.1.1. Identify and define the primary problem.
   3.1.2. Define goals and alternative goals
Course Learning Objectives:

After this course, students should be able to:

1. List the structure and function of the primary components of the mammalian brain. *(Learner 1.1)*

2. Describe the process of neurotransmission and analyze how drugs alter the process. *(Learner 1.1)*

3. List prominent neurotransmitters and discuss their role in normal function and in the pathophysiology of disease. *(Learner 1.1)*

4. Describe the pleasure-reward pathway and its normal role in behavior and survival. *(Learner 1.1)*

5. Explain how drugs with seemingly opposite effects (stimulants and depressants) both activate the reward pathways. *(Learner 1.1, Problem Solver 3.1)*

6. Describe the mechanisms of action, at the molecular and physiological level, of various drugs with a liability for abuse. *(Learner 1.1)*

7. Identify structure activity relationships relevant to various drugs of abuse. *(Learner 1.1)*

8. Discuss short and long term effects of drugs of abuse at both the molecular and physiological level. *(Learner 1.1, Problem solver 3.1)*

9. Recognize prominent psychological effects of drugs with a high liability for abuse. *(Learner 1.1, Problem solver 3.1)*

10. Review treatments and strategies employed during detoxification and the maintenance of abstinence from drugs of abuse *(Learner 1.1, Problem solver 3.1)*

Course Evaluation: Based on content from lecture 3 Exams @ 100 points each

**Exams:** All exams must be returned to the course instructor in class on the day on which it is made available for review. Failure to do so will result in a grade of zero for the examination. Students will have 5 school days to review an exam after grades are made available to identify problem areas, verify grading or contest answers to questions. Exams will not be available and grades will not be revised after this time period.

**Class Participation:** In order to earn the points for class participation you must contribute to the class discussion at least one time per week. This could take the form of a question, comment or other contribution to classroom discussions.

**Class Projects:** Students will be required to find one news article per month (i.e. one each for September, October, and November) relating to drugs of abuse. Each article will be accompanied by a written summary of the article. This summary should be at least 1 page (double-spaced) and include an explanation of how this article relates to drugs of abuse and a position statement (real or imaginary) regarding the matter presented in the news article.
**Instructor Feedback/Communication:**
1. Instructor will respond to emails within 48 hours of receipt, except for on weekends or holidays where it may take slightly longer. If traveling, there may be delays but students will be informed ahead of time. Office hours are posted on the office doors and are noted in individual handouts.

2. Instructor will return your assignments with feedback within 1 week of the submission due date. If late, students will be informed. Should you have a subsequent similar assignment due, please do NOT submit the second (or third) one until you receive feedback on the prior assignment. Instructor will always adjust your due date accordingly if his feedback is delayed to you.

**Course Grade Scale:**

- 92 to 100  **4.0**
- 85 to 91  **3.5**
- 80 to 84  **3.0**
- 75 to 79  **2.5**
- 70 to 74  **2.0**
- 65-69  **1.5**
- 60-64  **1.0**
- <60  **0.0**

**Remediation:**

**Students who fail this course will NOT have remediation options.**

**Textbook:**

No textbook will be required for the course. For your information I have provided a list of texts consulted for the course.


**Attendance and Student Responsibilities:** Make up exams will be provided only in exceptional cases and at the discretion of the instructor. Attendance is expected in all lectures. **Academic Honesty:** Any violation of the Academic Honesty Policy of the University and plagiarism will not be tolerated. Violators will be subject to full disciplinary action (perhaps including, but not limited to, any of the following: flogging, firing squad, lethal injection, decapitation, impalement, 10 years’ service as a galley slave, exile, lycanthropy, and/or a stern talking-to).

**Professionalism and Civility Policy:** Consistent with the expectations of a professional program, professional behavior and attitude are expected for all students. Lack of respect for other students, professors or staff as demonstrated by comments, tone of voice, or disruptive behavior will not be tolerated. The use of cell phones and/or texting during class is prohibited without prior permission from the instructor. Students in violation of this policy may be subject to dismissal from class, and re-admission following completion of an essay on civility and professionalism.

**Accommodations Policy:**

Please see the technical standards policy in the student handbook regarding accommodations in accordance with the American Disability Act. Students requesting testing accommodations must have the appropriate paperwork on file with University College. The student should present the letter, that University College provides, to the instructor

The information in this syllabus is subject to change in extenuating circumstances. Changes to the course syllabus will be provided to the student in writing.
The following schedule is intended as a guide for the course. Information and topics may be added or deleted based on the progression of a particular class.

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Lecture</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/27/19</td>
<td>Tuesday</td>
<td>Neuroanatomy, the Neuron, &amp; Synaptic Transmission</td>
<td>Dr. Witczak</td>
</tr>
<tr>
<td>08/29/19</td>
<td>Thursday</td>
<td>Neurotransmitters</td>
<td>Dr. Witczak</td>
</tr>
<tr>
<td>09/03/19</td>
<td>Tuesday</td>
<td>Pharmacodynamics &amp; Pharmacokinetics of Abuse</td>
<td>Dr. Witczak</td>
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<tr>
<td></td>
<td>Thursday</td>
<td>Psychoactive Drugs</td>
<td>Dr. Witczak</td>
</tr>
<tr>
<td>09/13/19</td>
<td>Tuesday</td>
<td>Amphetamines</td>
<td>Dr. Witczak</td>
</tr>
<tr>
<td>09/15/19</td>
<td>Thursday</td>
<td>Cocaine &amp; Crack cocaine</td>
<td>Dr. Witczak</td>
</tr>
<tr>
<td>09/20/19</td>
<td>Tuesday</td>
<td>The opium analgesic abuse &amp; Receptor theory</td>
<td>Dr. Witczak</td>
</tr>
<tr>
<td>09/22/19</td>
<td>Thursday</td>
<td>Opium Wars &amp; Narcotics/Opioids</td>
<td>Dr. Witczak</td>
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<tr>
<td>09/27/19</td>
<td>Tuesday</td>
<td>Exam # 1</td>
<td>Dr. Witczak</td>
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<tr>
<td>09/29/19</td>
<td>Thursday</td>
<td>Fentanyl &amp; analogs</td>
<td>Dr. Witczak</td>
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<tr>
<td>10/04/19</td>
<td>Tuesday</td>
<td>Naloxone &amp; Ibogane</td>
<td>Dr. Witczak</td>
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<tr>
<td>10/06/19</td>
<td>Thursday</td>
<td>Cannabis (Marijuana)</td>
<td>Dr. Witczak</td>
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<tr>
<td>10/11/19</td>
<td>Tuesday</td>
<td>Synthetic Marijuana</td>
<td>Dr. Witczak</td>
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<tr>
<td>10/10-14/19</td>
<td></td>
<td>Fall Break</td>
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<tr>
<td>10/18/19</td>
<td>Tuesday</td>
<td>Psychedelic drugs</td>
<td>Dr. Witczak</td>
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<tr>
<td>10/20/19</td>
<td>Thursday</td>
<td>Psilocibine</td>
<td>Dr. Witczak</td>
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<tr>
<td>10/25/19</td>
<td>Tuesday</td>
<td>Mescaline</td>
<td>Dr. Witczak</td>
</tr>
<tr>
<td>10/27/19</td>
<td>Thursday</td>
<td>LSD</td>
<td>Dr. Witczak</td>
</tr>
<tr>
<td>11/01/19</td>
<td>Tuesday</td>
<td>Exam # 2</td>
<td>Dr. Witczak</td>
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<tr>
<td>11/03/19</td>
<td>Thursday</td>
<td>Street drugs abuse</td>
<td>Dr. Witczak</td>
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<tr>
<td>11/08/19</td>
<td>Tuesday</td>
<td>Prescription Drugs Abuse</td>
<td>Dr. Witczak</td>
</tr>
<tr>
<td>11/10/19</td>
<td>Thursday</td>
<td>Benzodiazepines</td>
<td>Dr. Witczak</td>
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<tr>
<td>11/15/19</td>
<td>Tuesday</td>
<td>Barbiturates</td>
<td>Dr. Witczak</td>
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<tr>
<td>11/17/19</td>
<td>Thursday</td>
<td>Ketamine &amp; Phencyclidine</td>
<td>Dr. Witczak</td>
</tr>
<tr>
<td>11/22/19</td>
<td>Tuesday</td>
<td>Addiction &amp; overdose treatment</td>
<td>Dr. Witczak</td>
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<tr>
<td>11/23-30/19</td>
<td></td>
<td>Thanksgiving Break</td>
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</tr>
<tr>
<td>12/03/19</td>
<td>Tuesday</td>
<td>Sociological aspects of Cannabis use and Law</td>
<td>Dr. Witczak</td>
</tr>
<tr>
<td>12/05/19</td>
<td>Thursday</td>
<td>Drug Abuse long term Symptoms</td>
<td>Dr. Witczak</td>
</tr>
<tr>
<td>12/11/19</td>
<td>Tuesday</td>
<td>FDA Drug Recall/Diseases Strange Symptoms</td>
<td>Dr. Witczak</td>
</tr>
<tr>
<td>12/13/19</td>
<td>Thursday</td>
<td>Final exam</td>
<td>Dr. Witczak</td>
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</tbody>
</table>

Modified on February 28, 2019.