CGS Agenda Item #16-53
Effective Spring 2017

Eastern Illinois University
New Course Proposal
PSY 4810, Neuropsychopharmacology

Banner/Catalog Information (Coversheet)

1. **_X_ New Course or _____Revision of Existing Course**

2. **Course prefix and number:** PSY 4810

3. **Short title:** Neuropsychopharmacology

4. **Long title:** Neuropsychopharmacology

5. **Hours per week: _3_** Class **_0_** Lab **_3_** Credit

6. **Terms:** ___ Fall ___ Spring ___ Summer **_X_** On demand

7. **Initial term**: ___ Fall **_X_** Spring ___ Summer Year: **2017**

8. **Catalog course description:** Neuropsychopharmacology is the study of the neural mechanisms of drugs that influence thought, behavior, sensation, and mood. Research and theories on the mechanisms of neuropathology, pharmacodynamics (drug action), neurologic and psychiatric disorders, and states of consciousness may be covered. Details on neurotransmission, biochemical processes, and neural circuitry are presented.

9. **Course attributes:**

   General education component: Not applicable

   ___ Cultural diversity ___ Honors ___ Writing centered ___ Writing intensive ___ Writing active

10. **Instructional delivery**
    Type of Course:

    _X_ Lecture ___ Lab ___ Lecture/lab combined ___ Independent study/research

    ___ Internship ___ Performance ___ Practicum/clinical ___ Other, specify: _____

    Mode(s) of Delivery:

    _X_ Face to Face **_X_** Online ___ Study Abroad

    ___ Hybrid, specify approximate amount of on-line and face-to-face instruction_____

11. Course(s) to be deleted from the catalog once this course is approved. **None**

12. **Equivalent course(s): None**

    a. Are students allowed to take equivalent course(s) for credit? ___ Yes ___ No

13. **Prerequisite(s):** PSY 1879G or PSY 1890G (Introductory Psychology); PSY 3310 (Biological Psychology)

    a. Can prerequisite be taken concurrently? ___ Yes **_X_** No

    b. Minimum grade required for the prerequisite course(s)? _C__

c. Use Banner coding to enforce prerequisite course(s)? **X** Yes ___ No

d. Who may waive prerequisite(s)?

___ No one **X** Chair ___ Instructor ___ Advisor ___ Other (specify)

14. Co-requisite(s): None

15. Enrollment restrictions

a. Degrees, colleges, majors, levels, classes which may take the course: All

b. Degrees, colleges, majors, levels, classes which may not take the course: None

16. Repeat status: **X** May not be repeated ___ May be repeated once with credit

17. Enter the limit, if any, on hours which may be applied to a major or minor: 3

18. Grading methods: **X** Standard ___ CR/NC __ Audit ___ ABC/NC

19. Special grading provisions:

___ Grade for course will not count in a student's grade point average.

___ Grade for course will not count in hours toward graduation.

___ Grade for course will be removed from GPA if student already has credit for or is registered in: _____

___ Credit hours for course will be removed from student's hours toward graduation if student already has credit for or is registered in: _____

20. Additional costs to students:
Supplemental Materials or Software_____

Course Fee **X** No ___Yes, Explain if yes_____

21. Community college transfer:

____ A community college course may be judged equivalent.

_X__ A community college may not be judged equivalent.

Note: Upper division credit (3000+) will not be granted for a community college course, even if the content is judged to be equivalent.

Rationale, Justifications, and Assurances (Part I)

1. **X** Course is required for the major(s) of _Neuroscience_____

   ___Course is required for the minor(s) of _____

   ___Course is required for the certificate program(s) of _____

   X Course is used as an elective

2. **Rationale for proposal**: A course in neuropsychopharmacology is a complement to our current courses in biopsychology, sensation & perception, cognitive neuroscience, and abnormal psychology. It may also appeal to students in a number of other majors and minors (e.g., pre-med majors), as well as students interested in psychology graduate programs.

3. **Justifications for (answer N/A if not applicable)**

   Similarity to other courses: HST 4800 - Drugs and Society. (3-0-3) F, S. A study of drugs and drug use from an historical, biological and social perspective with emphasis on the physiological and pharmacological action of drugs in the body.

   PSY 4810 will have a small amount of overlap with HST 4800, as HST 4800 is focused more on the historical, societal and recreational implications of the different categories of drugs, whereas PSY 4810 is focused primarily on the neural mechanisms and their behavioral correlates. The HST department chair and HST curriculum committee saw no issues with overlap.

   Prerequisites: An introductory level of psychology knowledge is required to prepare students for this course, which will provide in-depth analysis of the mechanisms by which drugs affect neuronal processing in the brain, and, subsequently, affect, behavior, and cognition. **Intro psych** often briefly covers topics in biopsychology, such as neuronal processing and brain anatomy and physiology. A **biopsychology** course prerequisite will provide students with greater understanding of neuronal transmission and neurotransmitter mechanisms; this knowledge is foundational to subsequent understanding of the action of drugs on neuronal, behavioral, and cognitive functioning.

   Co-requisites: **N/A**

   Enrollment restrictions: **N/A**

   Writing active, intensive, centered: **N/A**

4. **General education assurances (answer N/A if not applicable)**

   General education component: **N/A**

   Curriculum: **N/A**

   Instruction: **N/A**

   Assessment: **N/A**

5. **Online/Hybrid delivery justification & assurances (answer N/A if not applicable)**

   Online or hybrid delivery justification: The Psychology Department already offers online courses and there is a demand for more online courses particularly for upper-level classes that Psychology undergraduate majors and minors take to fulfill their degree requirements.

   Instruction: Students will be able to access lectures with narrated content through an online course management system (e.g., D2L). Other online instructional materials are available on external web sites. Writing assignments, discussion postings, and quizzes/exams will be completed or submitted within the course management system. Feedback from the instructor can be provided through phone, email, online discussion boards, and through synchronous video chat, when applicable. All faculty who will deliver this course online are/will be OCDI (or appropriate equivalent) trained.

Integrity: The course syllabus includes a statement about academic dishonesty. EIU has software that can be utilized to ensure that students taking online exams are the person registered for the course (by using a student's webcam to record the test taker and testing environment). To deter academic misconduct by students, the writing assignments are checked automatically for plagiarism after being submitted in the course management system.

Interaction: Lecture portions of the course will be delivered via video- and/or audio-recorded lectures posted in the online course management system. The instructor and students will be able to communicate with each other through e-mail, discussion boards, and chat functions provided by EIU's course management system (i.e., D2L).

Model Syllabus (Part II)

Please include the following information:

1. Course number and title

PSY 4810: Neuropsychopharmacology

2. Catalog description

Neuropsychopharmacology is the study of the neural mechanisms of drugs that influence thought, behavior, sensation, and mood. Research and theories on the mechanisms of neuropathology, pharmacodynamics (drug action), neurologic and psychiatric disorders, and states of consciousness may be covered. Details on neurotransmission, biochemical processes, and neural circuitry are presented.

3. Learning objectives.

The general goal of this course is to provide students with an in-depth analysis of the mechanisms by which drugs affect neuronal processing in the brain, and, subsequently, mood, behavior, and cognition. The materials, activities, assignments, and evaluations assembled for the course are design to culminate in specific learning outcomes.

Upon completion of this class, students will be able to

1. Describe how psychologists study and conduct research on neuropsychopharmacology. (CT:1-3) [Graduate Goals for Learning: 1]
2. Compare and contrast the theories used to explain the process by which drugs affect behaviors, thoughts, and moods. (CT:3-4) [Graduate Goals for Learning: 1, 2]
3. Explain how different drug types impact neuronal brain processes. (CT:1,3-5) [Graduate Goals for Learning: 1, 2]
4. Read and comprehend scientific articles and book chapters on neuropsychopharmacology. (WCR:6-7; CT:2) [Graduate Goals for Learning: 1, 2, 4]
5. Write clearly and succinctly about the scientific study of neuropsychopharmacology. (WCR:1-4,7; CT:6) [Graduate Goals for Learning: 3, 4]

4. Course materials.

Text: Iversen, L. L., Iversen, S. D., Bloom, F. E., & Roth, R. H. (2009). *Introduction to Neuropsychopharmacology.* Oxford University Press, NY: NY.

5. Weekly outline of content.

Week	Chapter	Chapter Readings & Topics	DUE
1	1 2	Introduction to Neuropsychopharmacology Cellular and Molecular Foundations of Neuropsychopharmacology	
2	3	Principles and Methods of Behavioral Pharmacology	Journal Summary #1
3	4	Receptors	
4	5	Amino Acid Neurotransmitters	**Exam 1**
5	6 7	Acetylcholine Catecholamines	
6	8 9	Serotonin Histamine	Journal Summary #2
7	10 11	Neuropeptides Purinergic Pharmacology	
8	12	Other Interneuronal Signals	**Exam 2**
9	13	Treatments for Neurological or Psychiatric Disorders: Principles of Central Nervous System Drug Development	
10	14	Antidepressants and Anxiolytics	Journal Summary #3

	15	Antipsychotics	
11	16 17	Cognitive Disorders Movement Disorders	
12	18 19	Pain Epilepsy	**Exam 3**
13	20 21	Recreational Psychoactive Drugs Psychostimulants	
14	22 23	Heroin and Other Opiates Psychedelics	Major Paper
15	24 25 26	Cannabis Alcohol Nicotine	**Exam 4**
16	Final		

6. Assignments and evaluation, including weights for final course grade.

Exams (45%): Exams are open-ended essay questions. They cover content from the textbook and other sources posted in the course management system (e.g., D2L). Most of the questions are either conceptual in nature or are based on the application of information; the questions are designed to test critical and analytical thinking skills.

Major Paper (20%): Students will prepare a major paper emphasizing some area of neuropsychopharmacology. This paper may involve the evaluation of issues, application of concepts, or the integration of research. If appropriate, a research proposal may be submitted.

[Graduate students will be required to write a lengthier research paper with more extensive sources and critical evaluation of the material]

Journal Article Summaries (15%): Students will have to read and summarize several research articles on neuropsychopharmacology published in referred professional journals. This assignment helps students practice reading, interpreting, and synthesizing original research in neuropsychopharmacology.

Final Exam (15%): The final exam will consist of two parts. Part I will be several integrative essay questions covering material presented throughout the course. Part II will be a meta-cognitive reflective essay. It will require a synthesis of the student's learning about neuropsychopharmacology, identification of how course content might be applicable to their life experiences, and integration of course content into the broader discipline of psychology and/or neuroscience.

Discussion / Class Participation (5%): Several discussion questions or topic will be posted throughout the semester. These will require students to post a response to the question; and to respond to several other classmates' posts. [Face-to-face versions of the course may include additional in-class writing-to-learn assignments.]

7. Grading scale.

Letter grades will be based on a traditional scale of 90% or higher for an A, 80% - 89% for a B, 70% - 79% for a C, 60- 69% for a D, and below 60% will be an F.

8. Correlation of learning objectives to assignments and evaluation.

		Exams (45%)	Major Paper (20%)	Journal Article Summaries (15%)	Final Exam (15%)	Discussion & Participation (5%)
1	Describe how psychologists study and conduct research on neuropsychopharmacology. (CT:1-3), [Graduate Goals for Learning: 1]	x	x	x	x	x
2	Compare and contrast the theories used to explain the process by which drugs affect behaviors, thoughts, and moods. (CT:3-4), [Graduate Goals for Learning: 1, 2]	x	x	x		
3	Explain how different drug types impact neuronal brain processes. (CT:1,3-5), [Graduate Goals for Learning: 1, 2]	x		x		x

4	Read and comprehend scientific articles and book chapters on neuropsychopharmacology. (WCR:6-7; CT:2), [Graduate Goals for Learning: 1, 2, 4]	x	x	x		
5	Write clearly and succinctly about the scientific study of neuropsychopharmacology. (WCR:1-4,7; CT:6), [Graduate Goals for Learning: 3, 4]	x	x	x	x	x

Date approved by the department or school: March 25, 2016
Date approved by the college curriculum committee: April 29, 2016
Date approved by the Honors Council *(if this is an honors course):*
Date approved by CAA: September 1, 2016 CGS: