NEUR/PSYC 457 Advanced Neuroscience Spring 15
Tuesday Thursday 9:30 – 10:45 HH 204
And Required Online Activities

COURSE INSTRUCTOR AND CONTACT INFORMATION

Instructor: Lora Becker, Ph.D. Office: 208 Hyde Hall Office phone: 488-2532
Office hours: Tuesday 8 - 11, Monday & Wednesday 10 – 12, Tuesday & Thursday 12:20 – 1.
E-mail*:LB47@evansville.edu
**I answer e-mail between 6am and 4pm on weekdays. You will get a reply within 24 hours during the weekday. I will answer all weekend e-mail by 9 am on the following Monday. This policy will not stand while I am out of town for conference or holiday.*

REQUIRED TEXT: e-book purchased online through Sinauer Associates may include a 15% discount www.sinauer.com/catalog/neuroscience/neuroscience.html
Neither of these books are in the UE bookstore.
Neurons in Action V2 Moore & Stuart, 2007 **AND** Course smart e-book version of *Neuroscience* 5th Ed. Purves, Augustine, Fitzpatrick, Hall, LaMantia, McNamara & White 2012

COURSE DESCRIPTION: Involves the advanced study of neuroscience topics with focus on a current review of the literature. Topics will cover Neuropharmacology, Neurotransmitters and Drug Action, Genes and Behavior, Action Potential, Anatomy of the nervous system, Generation and formation of the nervous system and diseases of the nervous system.

RELEVANT LEARNING OBJECTIVES FOR PSYC/NEUR 457 - ADVANCED NEUROSCIENCE
Gain a depth of knowledge and competency in one or more disciplines of their choice.
The specific subjects a Neuroscience student needs to have a working knowledge of are Anatomy, Biochemistry, Genetics, Physical properties, and Physiology of the nervous system and ultimately how the nervous system regulates the organism's behavior.

DEGREE REQUIREMENTS: This course is one of the 300-400 level options for the Bachelors of Science degree in Psychology and Bachelors of Science degree in Cognitive Science. This course is required for the Bachelors of Science degree in Neuroscience.

COURSE REQUIREMENTS AND EVALUATION

UNIVERSITY OF EVANSVILLE ACADEMIC HONOR CODE: "I understand that any work which I submit for course credit will imply that I have adhered to the Academic Honor Code: I will neither give nor receive unauthorized aid nor will I tolerate an environment which condones the use of unauthorized aid." Failure to adhere to this code will result in receiving an "F" for the course.

CLASS ATTENDANCE AND PEDIGOGY: ***Attendance is required***. We have two hours to engage with this course material. Prepare for each Thursday class by brining material to support the conversation and your **active** mind to ask good questions. This semester we are using a class format unlike anything you may have done to date. I will NEVER lecture for 2 hours. Don't expect me to give you the information you 'need to know'. Critical thinking is the phrase of the course. You **must** engage in the material and add to the class in a meaningful way to succeed this semester. We will follow the course calendar, attacking a new topic each week. The class sessions will be filled with a variety of activities to engage us in the topic. Examples include Wiki pages, Kahn Academy videos, MCB80x modules, primary research papers and more!

NEURONS IN ACTION LABS: ***To be done outside of the classroom.*** Two labs are due each week at the start of Thursday class. You have until the next week to get two more completed. Please ask questions as they arise throughout the week on the Blackboard Discussion section dedicated to Neurons in Action. As you work on the assigned labs, upload your findings to the Bblearn assignment and answer ALL question associated with each section. Each lab is worth 5 points. Some labs will take MUCH more time than others, please start on these early. ***Because it is easy to get behind in NIA assignments, NO late assignments will be accepted.*** Labs are worth 20% of your course grade.

WIKIPEDIA PAGES: This semester we improving material found on the WWW. Ultimately you are writing a Wikipedia page! The first step is to try you hand at editing information on a page. As we progress across the semester, we will gain comfort with this process, to the ultimate goal of writing your own page. The page will be written BEFORE Spring Break, leaving time after break to get international feedback on the page and respond to this feedback.

EXAMS: Exams will cover information from the textbook, lab and class session for the group of topics outlined in the course calendar. Two exams will be taken on Blackboard, the final exam will be at the scheduled time/day. Although essay exams, these will not be typical questions. To be successful, you will be asked to stretch your critical thinking skills. Exams are worth 20% of your total class grade.

GRADE CALCULATION
(((Labs/125) *.20) + ((Exams/180) *.20) + (Class Participation *.10) + (Class Activities *.20) + (Wiki activities *.10) + (Wiki page *.20)) = percentage

GRADE DISTRIBUTION as percentage

95 – 100	A	83 – 86	B	73 – 76	C	63 – 66	D
90 – 94	A-	80 – 82	B-	70 – 72	C-	60 – 62	D-
87 – 89	B+	77 – 79	C+	67 – 69	D+	0 – 59	F

COURSE CALENDAR

Date	Topic (Purves Chapter)
1/15	Chapter 1, Wikipedia Assignments, First primary paper workshop.
1/16	**LAST DAY TO DROP W/O 'W'**
1/19	**MARTIN LUTHER KING JR. DAY**
1/22	Electrical Signals (2)
1/29	Voltage-Dependent (3)
2/5	Channels & Transporters (4)
2/12	Synaptic Transmission (5)
2/19	NT and Receptors (6)
2/26	Molecular Signaling (7)
3/5	Synaptic Plasticity (8)
3/7 – 3/15 SPRING BREAK	
3/19	Early Brian Development (22)
3/26	Construction of Circuits (23)
4/2	Modification of Circuits (24)
4/2	**LAST DAY TO DROP WITH 'W'**
4/3 – 4/5 EASTER BREAK	
4/9	Repair & Regeneration (25)
4/16	Neuroscience and Behavioral Reviews, Brain Research Reviews, Trends in Neurosciences
4/23	Proceedings of the National Academy of Sciences of the USA, Nature Reviews Neuroscience, Current Opinion in Neurobiology
4/29	**READING/STUDY DAY**
EXAM 3 EITHER APRIL 30, 8:00 AM OR MAY 5, 9:00 AM	

WITHDRAWAL POLICIES: A course may be dropped without a designated grade during the first two weeks of a term of the regular academic year. From the third to the eleventh weeks, a grade of "W" is assigned. After the eleventh week, a grade of "F" is assigned. Discontinuance of attendance does not automatically constitute a withdrawal. Students failing to file a proper drop/add form by the appropriate deadline must complete classes for which they are registered or received a grade of "F". Withdrawal from a course after the deadline requires petition to and approval of the Admissions and Standards Committee and/or the Vice President of Academic Affairs.

Last day to drop without a grade for Spring 2015 is Friday, January 16.
Last day to drop and receive a "W" for Spring 2015 is Thursday, April 2.

INCOMPLETE GRADE POLICY: All coursework is to be completed within the semester it is attempted. If an emergency prevents a student from completing some portion of the required assignments, as instructor may give an 'I' or incomplete grade only if the following circumstances are met:

1. The student's other work in the course could earn a passing grade.
2. The outstanding task can be completed without further class attendance.

Outstanding course work normally should be completed within six weeks of the class ending, but the instructor may allow up to one year from the end of the term for which the 'I' grade is granted. It is the student's responsibility to have this deficiency removed within the agreed upon time period or whining one year, whichever is less. If no grade change has been submitted by the instructor after the maximum one-year grace period, the registrar is authorized to change all grades of 'I' to 'F'.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES: It is the policy of the University of Evansville to make reasonable accommodations for students with properly documented disabilities. Written notification to faculty from the Office of Counseling and Health Education is required for any academic accommodations. If you are eligible to receive and accommodation and would like to request it for this course, please discuss it with me and allow two-week notice. Otherwise, it is not guaranteed that the accommodation can be received on a timely basis. If you have questions about services for students with disabilities or procedures for requesting services, you may contact the Office of Counseling and Health Education at 488-2663.