

**The Ohio State University
Colleges of the Arts and Sciences Course Change Request**

Psychology

Academic Unit
Psychology

313

Book 3 Listing (e.g., Portuguese)

Course Number

Summer Autumn **X** Winter Spring Year **2006**

Proposed effective date: choose one quarter and put an "X" after it; and fill in the year. See the OAA curriculum manual for deadlines.

A. Course Offerings Bulletin Information. Follow instructions in the OAA curriculum manual. Before you fill out the "Present Course" information, be sure to check the latest edition of the *Course Offerings Bulletin* and subsequent Circulating Forms. You may find that the changes you need have already been made or that additional changes are needed. If the course offered is less than quarter or term, please also complete the Flexibly Scheduled/OffCampus/Workshop Request form.

COMPLETE ALL ITEMS THIS COLUMN

Present Course

1. Book 3 Listing: **Psychology**
2. Number: **313**
3. Full Title: **Introduction to Psychobiology**
4. 18-Char. Transcript Title:
5. Level and Credit Hours: **4**
6. Description: **Introduction to the neuronal (25 words or less) and behavioral foundations of psychobiology.**
7. Qtrs. Offered : **A W S Su**
8. Distribution of Contact Time: **Three 48 min classes (e.g., 3 cl, 1 3-hr lab)**
9. Prerequisite(s): **Psych 300**
10. Exclusion:
(Not open to....)
11. Repeatable to a maximum of _____ credits.
12. Off-Campus Field Experience:
13. Cross-listed with:
14. Is this a GEC course? **No**
15. Grade option (circle): Ltr S/U P
If P graded, what is the last course in the series?
16. Is an honors version of this course available? **No**
17. Other general course information:

**COMPLETE ONLY THOSE ITEMS THAT CHANGE
Changes Requested**

1. _____
2. _____
3. **Behavioral Neuroscience**
4. _____
5. **5**
6. **Introduction to the structure and function of the nervous system in relation to behavior.**
7. _____
8. **Four 48-min classes**
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____

B. General Information

1. Do you want the prerequisites enforced electronically (see the OAA manual for what can be enforced)?
Yes

2. Does this course currently satisfy any GEC requirement, if so indicate which category?
No

3. What other units require this course? Have these changes been discussed with those units?

4. Have these changes been discussed with academic units that might have a jurisdictional interest in the subject matter? Attach relevant letters.

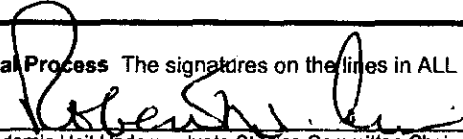

5. Is the request contingent upon other requests, if so, list the requests?

6. Purpose of the proposed change. (If the proposed change affects the content of the course, attach a revised syllabus and course objectives and e-mail to ascurofc@osu.edu.) **The name change is proposed to align the course with the current name used in the department and elsewhere to describe this field of study. The increase in contact/credit hours is to provide more comprehensive coverage of the field, as is needed for upper-level courses for which this course is a prerequisite, as well as to provide adequate breadth of exposure expected nationally for this course for students going into graduate or professional schools. Please see the enclosed letter for more details.**

7. Please list Majors/Minors affected by the proposed change. Attach revisions of all affected programs. This course is (check one):
 Required on major(s)/minor(s) A choice on major(s)/minors(s)
 An elective within major(s)/minor(s) A general elective:

8. Describe any changes in library, equipment or other teaching aids needed as a result of the proposed change or if the proposed change involves budgetary adjustments, describe the method of funding:
N/A

Approval Process The signatures on the lines in ALL CAPS (e.g. ACADEMIC UNIT) are required.

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|--|-----------------------------------|-------------------------|
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Academic Unit Undergraduate Studies Committee Chair | Dr. Robert Arkin
Printed Name | 28th April 2006
Date |
| Academic Unit Graduate Studies Committee Chair | Printed Name | Date |
| 
ACADEMIC UNIT CHAIR/DIRECTOR | Dr. Gifford Weary
Printed Name | 3-28-06
Date |
| 4. After the Academic Unit Chair/Director signs the request, forward the form to the ASC Curriculum Office, 105 Brown Hall, 190 West 17 th Ave. or fax it to 688-5678. Attach the syllabus and any supporting documentation in an e-mail to ascurofc@osu.edu . The ASC Curriculum Office will forward the request to the appropriate committee. | | |
| 5. COLLEGE CURRICULUM COMMITTEE | Printed Name | Date |
| 6. ARTS AND SCIENCES EXECUTIVE DEAN | Printed Name | Date |
| 7. Graduate School (if appropriate) | Printed Name | Date |
| 8. University Honors Center (if appropriate) | Printed Name | Date |
| 9. Office of International Affairs (study tours only) | Printed Name | Date |
| 10. ACADEMIC AFFAIRS | Printed Name | Date |

Introduction to Psychobiology

PSYCHOLOGY 313

WINTER 2006

Credit: 4 hours; Call # 17104-1
Time: MWF, 1:30-2:18 PM
Place: PH 1180
Text: Discovering Biological Psychology, Laura A. Freberg
college.hmco.com/psychology/freberg /bio/1e/students/
Prerequisite: Psychology 100
Course WebPage: carmen.osu.edu
Instructor: Dr. Ben Givens
33 Townshend Hall
Telephone # 292-0385 e-mail: givens.7
Office hours: by appointment.

WEEK	TOPIC	CHAPTER
1	Psychobiology as a neuroscience	1
2	Neuroanatomy: The building blocks of the brain	2
3	Neuronal conduction: Passive and Active potentials	3
4	Review and 1 st exam	
5	Synaptic Transmission and psychotropic drugs	4
6	Genetics, Evolution, and Development of the Brain	5
7	Visual system structure and function	6
8	Sleeping, dreaming, and circadian rhythms	11
9	Biopsychology of mental illness	16
10	Learning, Memory and Neuroplasticity	12

Student Evaluation: Students will be evaluated on the basis of three equally weighted exams (100 pts each). Each exam will consist of 50 multiple choice questions.

Important Dates: Exams: January 30, February 24, and March 13 (1:30 PM).

Note: This syllabus is available in alternative formats upon request.

Behavioral Neuroscience
PSYCHOLOGY 313
AUTUMN 2006

Credit: 5 hours; Call # XXXXX-X
Time: MTWTh, 1:30-2:18 PM
Place: PS 48
Prerequisite: Psychology 100 and 300
Instructor: Dr. Ben Givens
55 Psychology Building
Telephone # 292-0385
e-mail: givens.7@osu.edu

I. COURSE OBJECTIVES

This course explores the relationship between the brain and behavior. In order to truly understand behavior, it is necessary to understand the brain. There are two primary course objectives. First, this course will introduce terminology and concepts that will allow you to begin to understand how behavior and cognitive function could arise from interactions between groups of neurons. Second, this course will prepare you for upper level courses in Psychobiology and Behavioral Neuroscience. My hope is that in this course you will not only become familiar with the "nuts and bolts" of how the brain works, but also become fascinated by its complexity and elegance, and its awesome ability to bring into existence all of your thoughts, actions, memories, dreams, and hopes.

The course is divided into three major sections. The first section is organized around the general structure and function of the nervous system. In this section, we will begin by exploring the anatomical organization of the nervous system at both the cellular and systems level, followed by a discussion of the physiology (electrical and chemical) of neural communication within and between neurons. We will round out these beginnings by considering neuroendocrine systems, synaptic pharmacology of psychoactive drugs, and the genetics and development of the nervous system. The second section of the course will explore sensory and motor systems, with an in depth investigation of the visual system from retinal processes to complex perception. The third section will examine several domains of behavioral and cognitive functions, from biological rhythms and sleep, to stress and emotions, to learning and memory, to psychological disorders.

II. RESOURCES

Textbook: The course textbook is "*Discovering Biological Psychology*" by Laura A. Freberg. Houghton Mifflin Co., New York, 2006. This is a very readable text that provides most of the basic information that you will need for this course. Other Behavioral Neuroscience textbooks, like Rosenzweig et al's *Biological Psychology*, Kolb and Whishaw's *Brain and Behavior*, or Kalat's *Biological Psychology*, all have the same basic information that forms the core of this course. A copy of the course textbook is on reserve at the main library.

Websites: The textbook website is <http://college.hmco.com/psychology/freberg/bio/1e/students/>. A password for logging in to the site comes with a new textbook. The course website can be found at www.carmen.osu.edu. This site is where all course materials and information are made available. Most important are the lecture files. Each lecture is available in both PowerPoint and Acrobat (.pdf) format. Printing these out and reviewing them prior to each class is invaluable for success in this course. Finally, there are many websites on the internet that provide useful information about behavioral neuroscience, perhaps none more so than "Neuroscience for Kids" at <http://faculty.washington.edu/chudler/introb.html>

Assistance: I am available and interested in talking with you about the course, the course material, and strategies to improve your learning. I'm usually available after class, can answer questions by e-mail (givens.7@osu.edu) or phone (292-0385), and will gladly set up an appointment at a time that is mutually acceptable for more lengthy discussions.

III. LECTURE AND READING SCHEDULE

WEEK	CLASS TOPIC	CHAPTER	PAGES
1	Behavioral Neuroscience as a discipline	1	
	1 History of Mind-Brain studies		2 - 7
	2 Methods		8-19
2	Neuroanatomy: The building blocks of the brain	2	
	3 Peripheral nervous system		29-35&48-55
	4 Structure of the central nervous system		35-40
	5 The cerebral cortex		41-48
3	Neuronal conduction: Passive and Active potentials	3	
	6 Neurons and Glia		58-69
	7 The Resting Membrane Potential		69-73
	8 The Action Potential		73-77
4	Synaptic Transmission and psychotropic drugs	4	
	9 The Synapse		78-86
	10 Neurotransmitters and Drug Actions		90-108
	11 Exam 1 (over lectures 1-10/chapters 1-4)		
5	Genetics, Evolution, and Development of the Brain	5	
	12 Genetics and Environment		120-129
	13 Evolution		130-133
	14 Brain Development		133-145
6	Sensory and Motor Systems	6 & 8	
	15 Visual Processing		154-176
	16 Perception		177-185
	17 Movement		224-244
7	Sleeping, dreaming, and circadian rhythms	11	
	18 Biological Rhythms		312-320
	19 Sleep		320-334
	20 Sleep Disorders		325-340
8	Emotion, Aggression, and Stress	14	
	21 Exam 2 (over lectures 12-20/chapters 5, 6, 8 & 11)		
	22 Emotion		404-419
	23 Stress		424-428
9	Biopsychology of mental illness	16	
	24 Schizophrenia		456-465
	25 Depression		466-472
	26 Anxiety		473-482
10	Learning, Memory and Neuroplasticity	12	
	27 Learning		342-353
	28 Memory		353-374
	29 Course overview and review of final		
11	Final Exam (comprehensive [30%] over lectures 4-10/Chapters 2-4 and sectional (70%) over lectures 22-28/chapters 12, 14,16)		

IV. EXAMS and GRADING

There will be three exams in this course. Each exam will consist of 50 multiple choice questions. The first two exams are taken during regular class time and the third exam at the time scheduled for the final exam during the 11th week of the quarter. The first two exams are sectional, only over the material covered since the last exam, and the final also contains a sectional exam (70%). However, a portion (30%) of the final is comprehensive over material covered in the first exam. This early material is tested twice because it is considered to be critically important to your long term understanding of how the brain works. Each of the three tests is weighted equally, worth 100 points each, so that the final grade is out of 300 points according to the following table:

276	A	216	C
270	A-	210	C-
264	B+	204	D+
246	B	186	D
240	B-	180	D-
234	C+	<180	E

While there is no requirement that you attend lectures, all of the material that is tested on the exams comes from lecture, so it is in your best interest to attend all lectures. As a suggestion, you should make the acquaintance of others in the class, so that you can get class notes in the event that you miss a class, and so that you can form a study group, which I'm told is extremely useful in this course. The discussion board on the class website might be a place to begin to make those contacts if you don't know others in class.

V. Students with disabilities

This syllabus is available in alternative formats upon request. In addition, if you may need an accommodation based on the impact of a disability, you should contact the instructor immediately. Students with special needs should contact the Office of Disability Services (ODS) at 292-3307 for certification if they have not already done so. Upon such certification, the ODS and the instructor will make every effort to accommodate special needs. However, to ensure that evaluation of student performance in the course is conducted in a manner that is fair to all students, special accommodations will not be granted in the absence of ODS certification.