



Department of Psychology

238 Townshend Hall
1885 Neil Avenue Mall
Columbus, OH 43210-1222

November 16th, 2005
ASC Curriculum Committee
Rm. 109 Brown Hall
190 W 17th Avenue
Campus

Dear ASC Curriculum Committee members:

Regarding the New Course Request for Psychology 726 (cross-listed with NGSP 726) that follows: please note that this course is already being taught (NGSP 726) but is now to be cross-listed with Psychology.

Please let me know if further information is needed.

Sincerely,

A handwritten signature in cursive script that reads 'Gifford Weary'.

Gifford Weary, Ph.D.
Chair, Department of Psychology

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

Psychology
 Academic Unit
 Psychology
 Book 3 Listing (e.g., Portuguese)
 726 Introduction to Behavioral Neuroscience
 Number Title U,G Credit Hours
 Behav Neurosci 05
 18-Character Title Abbreviation Level Credit Hours
 Summer X Autumn 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 the instructions in the OAA curriculum manual. If this is a course with decimal subdivisions, then use one New Course Request form for the generic information that will apply to all subdivisions; and use separate forms for each new decimal subdivision, including on each form the information that is unique to that subdivision. If the course offered is less than a quarter or a term, please complete the Flexibly Scheduled/Off Campus/Workshop Request form.

Description (*not to exceed 25 words*): Team-taught seminar on selected topics from contemporary research areas in the field of behavior neuroscience

Quarter offered: SU Distribution of class time/contact hours: 3 hours week (2 x 1.5 hr)
 Quarter and contact/class time hours information should be omitted from Book 3 publication (yes or no):

Prerequisite(s): Permission of Instructor

Exclusion or limiting clause:

Repeatable to a maximum of 0 credit hours.

Cross-listed with: NGSP 726

Grade Option (Please check): Letter S/U Progress What is course is last in the series? _____

Honors Statement: Yes No GEC: Yes No Admission Condition

Off-Campus: Yes No EM: Yes No Course: Yes No

Other General Course Information: "Taught in English"

(e.g. "Taught in English." "Credit does not count toward BSBA degree.")

B. General Information

Subject Code _____ Subsidy Level (V, G, T, B, M, D, or P) _____
 If you have questions, please email Jed Dickhaut at dickhaut.1@osu.edu.

1. Provide the rationale for proposing this course:
 To provide Psychology and non-Psychology graduate (and select, high-level undergraduates) a contemporary and rigorous introduction to diverse research areas in the field of Behavioral Neuroscience.

2. Please list Majors/Minors affected by the creation of this new course. 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:

3. Indicate the nature of the program adjustments, new funding, and/or withdrawals that make possible the implementation of this new course.

N/A

4. Is the approval of this request contingent upon the approval of other course requests or curricular requests?

Yes No List:

5. If this course is part of a sequence, list the number of the other course(s) in the sequence: N/A

6. Expected section size: 15-20 Proposed number of sections per year: 1

7. Do you want prerequisites enforced electronically (see OAA manual for what can be enforced)? Yes No

8. This course has been discussed with and has the concurrence of the following academic units needing this course or with academic units having directly related interests (List units and attach letters and/or forms):
Not Applicable

Neuroscience Graduate Studies Program (NGSP)

*Letter of concurrence is attached.

9. Attach a course syllabus that includes a topical outline of the course, student learning outcomes and/or course objectives, off-campus field experience, methods of evaluation, and other items as stated in the OAA curriculum manual and e-mail to asccurrofc@osu.edu.

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

1. Academic Unit Undergraduate Studies Committee Chair	Robert Arkin Printed Name	4/11/2005 Date
2. Academic Unit Graduate Studies Committee Chair	Marilynn Brewer Printed Name	11/7/05 Date
3. ACADEMIC UNIT CHAIR/DIRECTOR	Gifford Weary Printed Name	11.15.05 Date

4. After the Academic Unit Chair/Director signs the request, forward the form to the ASC Curriculum Office, 105 Brown Hall, 190 West 17th Ave. or fax it to 688-5678. Attach the syllabus and any supporting documentation in an e-mail to asccurrofc@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 Education (if appropriate)	Printed Name	Date
10. ACADEMIC AFFAIRS	Printed Name	Date



2 SEPTEMBER 2005

Neuroscience Graduate Studies Program
Ohio State University
Randy J. Nelson, Co-Director
4072 Graves Hall | 333 W. 10th Avenue
Columbus, Ohio 43210

Dr. John Bruno
Department of Psychology
Ohio State University
Columbus, OH 43210

Dear John:

I understand that you plan to cross list NGSP 726 with Psych 726. Although you are the instructor of record with NGSP 726, I am writing to state that the Neuroscience Graduate Studies Program is in concurrence with the cross-listing.

Cordially,

Randy J. Nelson, Professor
Co-Director of Neuroscience
Graduate Studies Program



614.538.9526



614.451.3116



rnelson@osu.edu

**PSYCHOLOGY 726
INTRODUCTION TO BEHAVIORAL NEUROSCIENCE**

Dr. John P. Bruno - Course Coordinator
31 Townshend Hall; 2-1770; bruno.1@osu.edu
Tuesdays/Thursdays 10:00-11:30 am

WEEK	INSTRUCTOR	TOPIC
1	Dr. John P. Bruno	Schizophrenia I
1	Dr. John P. Bruno	Schizophrenia II
2	Dr. Gary Berntson	Autonomic Nervous System I
2	Dr. Gary Berntson	Autonomic Nervous System II
3	Dr. Ben Givens	Neurobiology of Memory I
3	Dr. Ben Givens	Neurobiology of Memory II
4	Dr. Karl Obrietan	Circadian Physiology
4	Dr. Karl Obrietan	Molecular Physiology of Temporal Lobe Epilepsy
5	REVIEW/MIDTERM EXAM	
6	Dr. Gary Wenk	Alzheimer's Disease I
6	Dr. Gary Wenk	Alzheimer's Disease II
7	Dr. Randy Nelson	Using Gene Knock-Out Mice to Study Aggressive and Mating Behavior
7	Dr. Courtney DeVries	Physiological and Behavioral Responses to Stress
8	Dr. Susan Travers	Nociception: Coding and Plasticity I
8	Dr. Susan Travers	Nociception: Coding and Plasticity II
9	Dr. David Padgett	Neuroendocrine Regulation of Inflammation I
9	Dr. David Padgett	Neuroendocrine Regulation of Inflammation II
10	Dr. Firdaus Dhabhar	Effects of Stress on Immune Cell Distribution
10	Dr. Firdaus Dhabhar	Enhancing vs Suppressive Effects of Stress on Immune Function

Course Objectives: The goal of this course is to introduce Psychology and Non-Psychology graduate students (and very advanced undergraduates) to the broad area of Behavioral Neuroscience. It is delivered as a team-taught pro-seminar in which highly productive scientists, each experts in their respective fields and with international reputations, will introduce students to the major issues, contemporary methodologies, and future goals of a specialty area within behavioral neuroscience.

Required Reading: A goal of this course is to deliver a high-level, contemporary discussion of the scientific literature, thus, students will be expected to read several articles from the primary literature prior to class each week. Citations for the required reading list appear below. The scope of this reading list is more impressive than its mere number as many of these articles will be outside of the students' personal fields of study. A representative reading list appears at the end of this syllabus. **Copies of each article are made available on WebCT (<http://classroom.med.ohio-state.edu>).**

Recommended Background Reading: Students are advised to consult several textbooks in order to obtain additional background information on general neuroscience and neuropharmacology. Citations for these resources appear below.

Evaluation of Students: This is a high-level course and the instructors expect that all students will read the material *prior* to class and come prepared to discuss the material. **Student attendance is absolutely critical to your success in this course.**

There will be two exams in this course, one will cover material presented during the first half of the course and will serve as a midterm. The second exam will cover material presented after the midterm exam and will be administered during finals week. Each examination will be of the essay type. Students will be expected to answer several questions posed by each faculty member. The general rule of thumb is that students should be able to answer each faculty member's questions in 25-30 min. **Each examination will count for 40% of the final grade. The remaining 10% of the final grade will be based upon classroom participation.**

Academic Misconduct: All students at the Ohio State University are bound by the Code of Student Conduct (see <http://oaa.ohio-state.edu/coam/code.html>). Violations will be dealt with according to the procedures detailed in the code. Any alleged cases of misconduct will be referred to the Committee on Academic Misconduct.

Students with Special Needs: Any student who feels that she/he may need an accommodation based upon the impact of a disability should contact Professor Bruno (2-1770) privately to discuss her/his specific needs. Also, contact the Office of Disability Services (2-3307) to coordinate such accommodations.

Required Reading List for Psychology 726

(Electronic copies may be found at WebCT (<http://classroom.med.ohio-state.edu>))

Week 1

Schizophrenia chapter from DSMIV-R manual, Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, American Psychological Association, pp 297-345.

Wong, A.H.C. & Van Tol, H.M. (2003) Schizophrenia: from phenomenology to neurobiology. Neuroscience and Biobehavioral Reviews, 27, 269-306.

Week 2

Berntson, G.G., Cacioppo, J.T., and Quigley, K.S. (1993) Cardiac psychophysiology and autonomic space in humans: empirical perspectives and conceptual implications. Psychological Bulletin, 114, 296-322.

Berntson, G.G., Sarter, M., and Cacioppo, J.T. (2003) Ascending visceral regulation of cortical affective information processing. European Journal of Neuroscience, 118, 2103-2109.

Week 3

Byrne, J.H. (2003) Learning and memory: basic mechanisms. In: *Fundamental Neuroscience*, Chapter 50, (2nd Edition, Eds: Squire, Bloom, McConnell, Spitzer, and Zigmond), Academic Press, San Diego.

Eichenbaum, H.B. (2003) Learning and memory: brain systems. In: *Fundamental Neuroscience*, Chapter 51, (2nd Edition, Eds: Squire, Bloom, McConnell, Spitzer, and Zigmond), Academic Press, San Diego.

Week 4

Leite, J.P., Garcia-Cairasco, N., and Cavalheiro, E.A. (2002) New insights from the use of pilocarpine and kainate models. Epilepsy Research, 50 (1-2), 93-103.

Van Gelder, R.N. (2004) Recent insights into mammalian circadian rhythms. Sleep, 27, 166-171.

Week 5

Gold, P.E., Cahill, L., and Wenk, G.L. (2003) The lowdown on Ginkgo Biloba. Scientific American (April), 86-91.

Wenk, G.L. (2003) Alzheimer's disease: emerging noncholinergic treatments. Geriatrics (February - Supplement), 3-10.

Wenk, G.L. (2003) Neuropathologic changes in Alzheimer's disease. Journal of Clinical Psychiatry, 64, 7-10.

Week 6

Nelson, R.J. and Chiavegatto, S. (2001) Molecular basis of aggression. Trends in Neurosciences, 24, 713-720.

Wen, J.C., Hotchkiss, A.K., Demast, G.E., and Nelson, R.J. (2004) Photoperiod affects neuronal nitric oxide synthase and aggressive behaviour in male Siberian hamsters (*Phodopus sungorus*). Journal of Neuroendocrinology, 16, 916-921.

Week 7

Buwalda, B., Kole, M.H.P., Veenema, A.H., Huininga, M., de Boer, S.F., Korte, S.M., and Koolhaas, J.M. (2005) Long-term effects of social stress on brain and behavior: a focus on hippocampal functioning. Neuroscience and Biobehavioral Reviews, 29, 83-97.

Week 8

Craig, A.D. (2002) How do you feel? Interoception: the sense of the physiological conditions of the body. Nature Reviews/Neuroscience, 3, 665-664.

Woolf, C.J. (2004) Pain: moving from symptom control toward mechanism-specific pharmacological management. Annals of Internal Medicine, 140, 441-451.

Wiesler, F.J., Maier, S.F., and Watkins, L.R. (2005) Immune-to-brain communication dynamically modulates pain: physiological and pathological consequences. Brain Behavior and Immunity, 19, 104-111.

Week 9

Padgett, D.A. and Glaser, R. (2003) How stress influences the immune response. Trends in Immunology, 24, 444-460.

Charmandari, E., Tsigos, C., and Chrousos, G. (2005) Endocrinology of the stress response. Annual Review of Physiology, 67, 259-284.

Week 10

Dhabhar, F.S. and Viswanathan, K. (2005) Short-term stress experienced at the time of immunization induces a long-lasting increase in immunological memory. American Journal of Physiology (Regular) (In Press).

Recommended Background Resource Texts

Fundamental Neuroscience, (Eds: Squire, Bloom, McConnell, Roberts, Spitzer and Zigmond), 2nd Edition, Academic Press.

Principles of Neuroscience, (Eds: Kandell, Schwartz, and Jessell), 4th Edition, McGraw Hill.

The Biochemical Basis of Neuropharmacology, (Eds: Cooper, Bloom, and Roth), 8th Edition, Oxford Press.