

CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS
NEW COURSE PROPOSAL
PROGRAM AREA: PSYCHOLOGY

1. Catalog Description of the Course. [Include the course prefix, number, full title, and units. Provide a course narrative including prerequisites and corequisites. If any of the following apply, include in the description: Repeatability (May be repeated to a maximum of ___ units); time distribution (Lecture ___ hours, laboratory ___ hours); non-traditional grading system (Graded CR/NC, ABC/NC). Follow accepted catalog format.]

PSY 450 ADVANCES IN NEURAL SCIENCE (3)

3 hours lecture per week

Prerequisite: PSY 212 and PSY 314

Surveys current research on the nervous system, its development, and its control of behavior. The course also describes some neurological and behavioral disorders that are both instructive scientifically and important clinically. Includes inferences that can be made about human brain functions from the effects of neurological trauma and clinical tests.

	Units:	Hrs/Unit	Benchmark Enrollment
2. Mode of Instruction: Lecture	3	1	25

3. Justification and Learning Objectives for the Course. (Indicate whether required or elective, and whether it meets University Writing, and/or Language requirements) [Use as much space as necessary]

Elective for psychology majors

This course examines the latest findings in the field of Neuroscience. At the end of the course students will be able to do the following:

Explain and distinguish among the major theoretical approaches in neuro-psychology

Demonstrate knowledge and understanding of the latest research in human learning, perception, and cognition

Demonstrate knowledge and understanding of both normal and pathological developmental changes in the human nervous system

Demonstrate knowledge and understanding of neurological perspectives on the origin and treatment of abnormal behavior due to trauma to the brain

Demonstrate knowledge and understanding of theory and research in the neurological and physiological bases of evolved behavior

4. Is this a General Education Course? If Yes, indicate GE category: No

5. Course Content in Outline Form

Overview of Prenatal Brain Development
Neurulation, Gross Anatomy, Neuronal Development
Myelination, Corticogenesis, Subtractive Events
Plasticity
Neural and Glial Proliferations
Postnatal Shaping Events
Plasticity and the Developing Human Brain
Brain Evolution
Neurodevelopmental Disorders

6. References

Kandel, E.R., Schwartz, J.H., Jessell, T. M. (2000). Principles of Neuroscience. Boston, MA: McGraw-Hill/Appleton & Lange.
Gazzaniga, M.S. (1999). The New Cognitive Neurosciences. Cambridge, MA: MIT Press.
Gazzaniga, M.S. (Ed.). (2000). Cognitive Neuroscience: A Reader. New York: Blackwell Publishers.
Goldberg, E. (2002). The Executive Brain: Frontal Lobes and the Civilized Mind. Oxford, UK: Oxford University Press.

7. Qualified Faculty Beatrice de Oca

Fall Semester: **Spring Semester:** **Summer Semester:**

8. Frequency

9. New Resources Required. None

10. Consultation *Attach consultation sheet from all program areas, Library, and others (if necessary)*

11. If this new course will alter any degree, credential, certificate, or minor in your program, attach a program modification

Proposer of Course: Kevin Volkan

Date: Wednesday, January 08, 2003