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.

2. Mode of Instruction: Lecture  

3. Units:  Hrs/Unit  Benchmark Enrollment  

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  
- Neurilation, Gross Anatomy, Neuronal Development  
- Myelination, Corticogenesis, Subtractive Events  
- Plasticity  
- Neural and Gliat Proliferations  
- Postnatal Shaping Events  
- Plasticity and the Developing Human Brain  
- Brain Evolution  
- Neurodevelopmental Disorders

6. References  

NEWCRSFR 9/30/02
7. Qualified Faculty  Beatrice de Oca

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
<th>Summer Semester</th>
</tr>
</thead>
</table>

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