APPLICATION FOR NEW COURSE

1. Submitted by College of Health Sciences Date 06/15/02
Department/Division offering course Rehabilitation Sciences/Communication Disorders

2. Proposed designation and Bulletin description of this course:
   a. Prefix and Number ___CD 571___
   b. Title* Neural Bases of Speech, Language, and Hearing
      NOTE: if the title is longer than 24 characters (including spaces), write a sensible title (not
      exceeding 24 characters) for use on transcripts* Neural Bases
   c. Lecture/Discussion hours per week ___3___
   d. Laboratory hours per week ___0___
   e. Studio hours per week ___0___
   f. Credits ___3___

   g. Course Description:
      Detailed investigation of the neuroanatomy and neurophysiology of speech, language, and
      hearing from a communication sciences perspective. Emphasis on anatomy and physiology of
      the central nervous system, neurodevelopment, and normal neural substrates involved in speech,
      language, and hearing.

   h. Prerequisites (if any): CD 378 or permission of the instructor

   (i) May be repeated to a maximum of ___0___ credits (if applicable)

4. To be cross-listed as: N/A

5. Effective Date: Summer 2003
   (semester and year)

6. Course to be offered (a) ___XXX___ (b) ___ (c) ___
   Fall Spring Summer

7. Will the course be offered each year? Yes
   (Explain if not annually): NA

8. Why is this course needed:
   Knowledge of the neuroanatomy and neurophysiology of speech, language, and hearing is
   essential for understanding speech and language disorders in children and adults. This content is
   consistent with accreditation guidelines made by the American Speech-Language-Hearing
   Association and also meets guidelines set by state law for training speech-language pathology
   assistants. Please see the curriculum revision proposal summary for details.

9. a. By whom will the course be taught? Communication Disorders Faculty

   b. Are facilities for teaching the course now available? Yes
      If not, what plans have been made for providing them?

10. What enrollment may be reasonably anticipated? 30-35

11. Will this course serve students in the Department primarily? Yes
Will it be of service to a significant number of students outside the Department?  No
If so, explain

Will the course serve as a University Studies Program course?  No
If yes, under what Area? N/A

12. Check the category most applicable to this course:

   XX  traditional; offered in corresponding departments elsewhere;
   ___ relatively new, now being widely established
   ___ not yet to be found in many (or any) other universities

13. Is this course part of a proposed new program?  No
If yes, which? N/A

14. Will adding this course change the degree requirements in one or more programs?  Yes
If yes, explain the change(s) below:

   This course will be required for a B.H.S. in Communication Disorders. It is part of a curriculum
   revision for the undergraduate and graduate programs in Communication Disorders. A complete
   proposal is being submitted concurrently.

15. Attach a list of the major teaching objectives of the proposed course and outline and/or reference
    list to be used.

    These can be found on the proposed course syllabus (attached).

16. If the course is a 100-200 level course, please submit evidence (e.g., correspondence) that the
    Community College System has been consulted.

    N/A

17. Within the Department, who should be contacted for further information about the proposed
    course?

    Name and Phone Extension: Jodelle F. Deem 257-7923

*NOTE: Approval of this course will constitute approval of the program change unless other program
    modifications are proposed.
CD 571 Neural Bases of Speech, Language, and Hearing

Course Description:
Detailed investigation of the neuroanatomy and neurophysiology of speech, language, and hearing from a communication sciences perspective. Emphasis on anatomy and physiology of the central nervous system, neurodevelopment, and normal neural substrates involved in speech, language, and hearing.

Teaching Objectives:
Following completion of this course, the student will be able to:
1. Recognize terminology of neuroanatomy and neurophysiology
2. Discuss the neural substrates involved in speech, language, and hearing
3. Identify brain areas involved in speech, language, and hearing
4. Discuss the course of neurodevelopment from prenatal to adulthood

Textbooks:


Topics:
Each topic will be covered in detail with an emphasis on the topic's role in communication science. The topics are as follows:
I. Functional and organizational principles of the brain
II. Anatomy and physiology of the neuron, axon, and dendrite
III. Somatosensory system
IV. Anatomy and physiology of spinal cord and spinal nerves
V. Anatomy and physiology of the brainstem
VI. Cranial nerves including origin and pathways
VII. Visual pathway
VIII. Auditory and vestibular pathway
IX. Anatomy and physiology of cerebellum
X. Motor pathways
XI. Anatomy and physiology of Subcortical structures including basal ganglia, thalamus, and limbic system
XII. CNS Blood supply
XIII. Neurodevelopment from prenatal to adulthood
XIV. Neural substrates involved in cognitive function
XV. Dissection of sheep brain to view and identify pathways and areas involved in speech, language, and hearing

Course Requirements for undergraduate students:
Three exams 60%
Quizzes 10%
Final Exam 30%
Course Requirements for graduate students:
Three exams 50%
Neural Plasticity paper 10%
Quizzes 10%
Final Exam 30%

For each assignment, and for the final course grade, letter grades will be calculated as follows:

A = 90 - 100
B = 80 - 89
C = 70 - 79
D = 60 - 69
E = below 60
The Minor Change route for courses is provided as a mechanism to make changes in existing courses and is limited to one or more of the following:

a. change in number within the same hundred series;
b. editorial change in description which does not imply change in content or emphasis;
c. editorial change in title which does not imply change in content or emphasis;
d. change in prerequisite which does not imply change in content or emphasis;
e. cross-listing of courses under conditions set forth in item 3.0;
correction of typographical errors. [University Senate Rules III - 3.1]