

**CALIFORNIA STATE UNIVERSITY SAN MARCOS
COLLEGE OF EDUCATION/EXTENDED LEARNING
MASTERS PROGRAM IN COMMUNICATIVE SCIENCES AND DISORDERS**

COURSE: EDSL 691: Neuroscience for the Speech-Language Pathologist (3 units)

Fall 2010

Tuesdays 10:00-13:00

Location: FCB 104

Instructor: Suzanne Moineau, Ph.D.

Office: UH 323, phone (760) 750-8505

Office hours: Thursday 1-2 or by appointment

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COLLEGE of EDUCATION MISSION STATEMENT

The mission of the College of Education Community is to collaboratively transform public education by preparing thoughtful educators and advancing professional practices. We are committed to diversity, educational equity, and social justice, exemplified through reflective teaching, life-long learning, innovative research, and ongoing service. Our practices demonstrate a commitment to student centered education, diversity, collaboration, professionalism, and shared governance.

I. COURSE DESCRIPTION

The purpose of the course is to provide students with a general understanding of the neural mechanisms involved in speech, language, hearing and cognitive functions in children and adults. The course will include neuroanatomical and physiological correlates to pathology in these domains of function. Peripheral nervous system structures will be covered, however, the course will primarily focus on central nervous system functions and their role in communication disorders. **There are no pre- or co-requisites for this course.**

II. COURSE OBJECTIVES AND ASSIGNMENTS FOR STUDENT KNOWLEDGE AND SKILLS ACQUISITION

1. Students will demonstrate knowledge of technical neurological terms, functional classifications and principles that govern brain function.
2. Students will demonstrate knowledge of normal and abnormal neuroanatomical and physiological development across the lifespan.
3. Students will demonstrate knowledge of the functional organization of the brain, including understanding: how behavior maps onto neural space, the behavioral manifestations of abnormal functional organization, and changes in functional organization and behavior following brain injury.

4. Students will demonstrate knowledge and skill in predicting behavioral affects of specific forms of neurological illness and injury, determining treatment efficacy/limitations based on neurological status, and in broadly applying this knowledge to the profession.

Each of the objectives stated above will be evaluated by the following mechanisms:

1. **Examinations:** Students will take 2 examinations based on information from lectures and class discussion, that evidence gained knowledge in the following areas: terminology, classifications, typical and atypical neurological development, brain-behavioral correlations, behavioral manifestations of neurological disease/injury application of material to clinical practice, and multicultural issues; exams to be graded by the instructor (**ASHA Standards III-B, C, D, E & F; IV-B; V-A; CTC for the Clinical Rehabilitative Services Credential (CRSC) in Language, Speech and Hearing (LSH) Standards 19, 20, 22, 23, 24**). 100 points total.

2. **Clinical Case Studies:** Students will write up 5 clinical consideration response papers based on lecture material. Each student will arrive to class with their response paper and will exchange it with a fellow classmate for review. Final papers will be graded by the instructor Responses will be reviewed with peers and then graded by the instructor. (**ASHA Standards III-B, C, D, E & F; IV-B; V-A; CTC Standard 19, 20, 22**). 50 points total

3. **Research Paper:** Students will work in teams of two (2) to prepare a research driven paper on the neurological underpinnings of a particular disorder area that they are assigned. The paper should open with an explanation of the disorder and its behavioral manifestations. You can get this information from a journal article or a standard textbook in the field and this should be referenced in APA format in your bibliography, along with the research articles you will review and include. The main body of the paper is a review of the current literature on the neurological correlates to the behavioral profile for that disorder. If the article is specific in detailing out which behaviors are associated with which region, this should be clearly explained in your paper. The paper should include a summary of the findings and how they overlap or are contradictory. You should discuss the implications for the practicing therapist, and how you will use this information in the future. Each student will be responsible for finding three journal articles related to the neurology of the disorder to contribute to the final paper (i.e. there should be a total of 6 references). The final paper should be a joint venture between the two of you – a true collaborative endeavor.

You will be required to give a presentation of your paper/findings to the class during our last 2 weeks. (**ASHA Standards III-B, C, D, E & F; IV-B; V-A; CTC Standard 19, 20, 22, 23, 24**). 100 points total

III. COURSE GRADING (percentage of total points):

95 – 100	A	80 – 82	B-
90 – 94	A-	77 – 79	C+
87 - 89	B+	73 – 76	C
83 – 86	B	70 – 72	C-

Submission Schedule: Work submitted late, but within one week of the due date will be reduced by one letter grade. Work received over one week late receives no credit.

Grading Emphasis: Each written assignment will be graded approximately 80% on content (detail, logic, synthesis of information, depth of analysis, etc.), and 20% on mechanics (grammar, syntax, spelling, format, uniformity of citation, etc.).

IV. REQUIRED TEXT:

There is no required textbook, however, if you are interested in purchasing a text, I strongly recommend the following:

Bhatnagar, S. (2008). *Neuroscience for the Study of Communicative Disorders. 3rd Edition.* Baltimore: MD. Lippincott Williams & Wilkins

PROFESSIONAL AND ADMINISTRATIVE REQUIREMENTS

1. "Person-first" language (e.g., "Individuals with aphasia" rather than "The aphasic individual;" "Johnny presents with Down Syndrome" rather than "My Down Syndrome student") must be used throughout all written and oral assignments and discussions.
2. All written documents should be completed with a word processor. Keep an electronic copy of all of your work. You will want these for your review when you are ready to prepare for the PRAXIS exam.
3. Complete and hand in all assignments on the due dates for full credit. If you have extraordinary circumstances that impact completion of your assignments, please inform the instructor(s). Any time that you have questions or concerns, please contact the instructor(s) immediately.
4. Participate actively in class discussions and group activities and demonstrate positive interpersonal skills with classmates, the instructors, and guests.
5. Ensure you receive handouts and information if you miss class, so be sure to get phone numbers from colleagues/classmates.

V. COLLEGE of EDUCATION ATTENDANCE POLICY

Due to the dynamic and interactive nature of courses in this field, all students are expected to attend all classes and participate actively. At a minimum, students must attend more than 80% of class time, or s/he may not receive a passing grade for the course at the discretion of the instructor. Individual instructors may adopt more stringent attendance requirements. Should the student have extenuating circumstances, s/he should contact the instructor as soon as possible. *(Adopted by the CoE Governance Community, December, 1997).*

Attendance and Participation for this course:

The course deals with complex material processed in a variety of ways. Structured interactions, group processes, oral presentations, guided discussions, and development of assessment and treatment skills are the norm. The degree of your engagement in these processes forms the basis for points assigned. Due to the fast paced and highly interactive nature of the course, regular attendance and full participation are expected: teaching and learning is difficult (if not impossible) if one is not present for and engaged in the process. Therefore, the above College Attendance Policy is amplified as follows:

1. Missing more than 2 class meetings will result in the reduction of one letter grade.
2. Arriving late or leaving early on more than two occasions will result in the reduction of one letter grade.
3. Illness and emergency circumstances will be considered/negotiated on a case-by-case basis. These measures should not be considered punitive, as students are expected to establish appropriate personal, academic and career-ladder priorities. Therefore these measures should be viewed as taking appropriate individual responsibility for one's own learning in a democratic, collaborative and reciprocal-learning environment.

VI. GENERAL CONSIDERATIONS

Ability

Every student has the right to equitable educational consideration and appropriate accommodation. Students having differing ability (mobility, sight, hearing, documented learning challenges, first language/English as a second language) are requested to contact the professor at the earliest opportunity. Every effort will be made to accommodate special need. Students are reminded of the availability of Disabled Student Services, the Writing Center, technology assistance in the computer labs, and other student support services available as part of reasonable accommodation for special needs students.

CSUSM Academic Honesty Policy

“Students will be expected to adhere to standards of academic honesty and integrity, as outlined in the Student Academic Honesty Policy. All written work and oral assignments must be original work. All ideas/materials that are borrowed from other sources must have appropriate references to the original sources. Any quoted material should give credit to the source and be punctuated with quotation marks.

Students are responsible for honest completion of their work including examinations. There will be no tolerance for infractions. If you believe there has been an infraction by someone in the class, please bring it to the instructor's attention. The instructor reserves the right to discipline any student for academic dishonesty in accordance with the general rules and regulations of the university. Disciplinary action may include the lowering of grades and/or the assignment of a failing grade for an exam, assignment, or the class as a whole."

Appeals

Every student has the right to appeal grades, or appeal for redress of grievances incurred in the context of any class. Disputes may be resolved informally with the professor, or through the formal grades appeal process. For the latter, consult Dr. Kelly, Associate Dean.

Students with Disabilities Requiring Reasonable Accommodations

Students are approved for services through the Disabled Student Services Office (DSS). The DSS Office is located in Craven Hall 5205, and can be contacted by phone at (760) 750-4905 or TTY (760) 750-4909. Students authorized by DSS to receive reasonable accommodations should meet with their instructor during office hours or, in order to ensure confidentiality, in a more private setting.

All University Writing Requirement

Students will chose a topic to research and write a 2,500 word paper. Evaluate the question, "How am I going to change the world one child at a time?" Week 1: Write a paper evaluating your personal evaluation in response to the prompt. Week 2: Set goals through a personal action plan. Week 14: Reflect on your practice and your growth of the prompt at the end of the course. Submit as one total paper.

VII. TENTATIVE COURSE OUTLINE:

September 14, 2010

Review syllabus and course requirements; assignment of research topic
Fill out liability forms
What do we know?
Orientation to the Nervous System; Review of the neuron and synapse
Chapters: 1 and 5

September 21, 2010

No Class – you should use this time to find your articles and begin working on your papers

September 28, 2010 – October 19, 2010

Thalamus
Somatosensory System
Visual
Auditory
Vestibular Systems
CV system and CSF
Chapters: 6 – 10; 17-18

Midterm – October 19th

October 26, 2010

This class section will be used to work on your papers and for me to workshop with you in class.

November 2, 2010 – November 23, 2010

Motor System
Cranial Nerves
Chapters: 11-15

Final Exam – November 23, 2010

November 30, 2010

No class – you should be working on your papers and presentations

December 7th & 14th, 2010 -- Paper presentations