

Course Outline
Neural Basis of Motor Control
KINS 8210
Spring Term 2008

I. Course Information

- A. Location - Room 352 Ramsey
- B. Class Days & Time: Tuesday & Thursday 6:00-7:15

II. Instructor Information

- A. Instructor: Phillip D. Tomporowski, Ph.D.
- B. Office Location: Room 357 Ramsey
- C. Office Hours: Tue-Thur 10:00-11:00
AND by appointment
- D. Office Phone: 542-4183
- E. e-mail: ptomporo@uga.edu

III. Course Description

The course will build upon information presented in EXRS 7210 (KINS 7360) and focus on factors that influence motor control and learning. It is assumed that the student has a working knowledge of the structure and function of the central nervous system. The class will focus on:

1. Developmental and life-span factors that influence motor control.
2. Diseases that influence motor control
3. Insults to the central nervous system that influence motor control
4. Methods of rehabilitation designed to ameliorate motor-control problems
5. Research and theory that focus on remediation of motor-movement problems.

IV. Course Content:

A seminar-approach will be taken throughout the term: Class presentations will augment material presented in assigned readings. Several themes, which are central to the class, will be emphasized throughout the semester. These core themes include:

1. Scientific methods used to understand and evaluate learning and performance.
2. Information-processing approaches to the study of skilled behavior
3. Neuropsychology of movement production
4. Theories of motor learning.
5. Individual and age-related differences in skill acquisition.
6. Basic and applied research in motor behavior.

V. Text & Readings

A. Text:

Latash, M. L. (2007). *Neurophysiological basis of movement* (2nd ed). Human Kinetics.

B. Readings:

WebCT - Readings will be provided throughout the term

VI. Course Objectives

Students will be able to review, summarize, and present information on specific topics related to motor-movement problems. Each student will select or be assigned specific topics and then provide his or her colleagues with: a) a synopsis of current perspectives on the movement disorder, b) a tutorial on the neural basis of the disorder, 3) an overview of rehabilitation/treatment methods, and c) a brief review of recent research findings.

VII. Evaluation Procedures:

A. Class Presentations: Each student will develop a notebook that summarizes each class discussions. The notebook will be reviewed twice by the instructor: Week of March 4-7th and April 22-24. As part of each review process, notebooks will be evaluated on the basis of its quality of organization and material provided. An overall letter grade for the notebook will be assigned. Each student's class presentation will be evaluated on the basis of its quality of organization and material presented. An overall letter grade for each class presentation will be assigned by the instructor. Class presentations/notebook development will constitute 70% of the student's final grade.

B. Examinations: Two exams will be given. Material on these exams will come from information provided in class discussion, readings, and presentations. The types of questions will be short- answer essay. A mid-term exam will be administered March 4, 2008 and the final exam will be administered during finals week from XX pm on XX, May 6, 2008. Each exam will constitute 15% of the final course grade.

C. Final Grades. Cutoffs for grades will be:

A = 93-100 A- = 90-92.9 B+ = 87-89.9 B = 83-86.9 B- = 80-82.9 C+ = 77-79.9

C = 73-76.9 C- = 70 -72.9 D+ = 67-69.9 D = 63-66.9 D- = 60-62.9

Exam Dates

Mid-Term Exam: Tuesday March 4, 2008

Final Exam: XXX Tuesday May 6, 2008 (Final Exam - 12:00-3:00 pm)

VIII. Tentative Schedule: The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

No Class: March 10 - 14 (Spring Break)

Week	Topics	Readings
1	Introduction/Topic selection	
2.	Cognition & Information processing Cognitive Rehabilitation/ Physical Rehabilitation	Chapter 13 Brain anatomy Chapter 35 Motor Rehabilitation
<u>I. Developmental and Life-span Issues</u>		
3.	Typical and Atypical Development	Chapter 29: Development
4-5	Aging	Chapter 28: Aging
6.	Fatigue	Chapter 27: Fatigue
<u>II. Impact Injury to the Central Nervous System</u>		
7-8	Head injury	Chapter 14: Cerebral Cortex
9	Spinal Injury	Chapter 31: Spinal Cord
<u>III. Diseases of the peripheral nervous system</u>		
10	Peripheral Muscular Disorders	Chapter 30: Peripheral
<u>IV. Diseases/insult of the central nervous system</u>		
11-12	Cortical Disorders	Chapter 34: Cortical Disorders
13-14	Disorders of the Basal Ganglia	Chapter 16: Basal Ganglia Chapter 32: BG Disorders
15	Cerebellar Disorders	Chapter 15: Cerebellum Chapter 33: Cerebellar Disorders

Instructor's Policy

1. Students are expected to attend classes regularly.
2. "Incomplete" grades will not be given unless there are circumstances beyond the student's control which prevent the completion of course requirements (e.g., documented illness, serious family emergencies).
3. "Incomplete" grades will not be given without the student's having made prior arrangements for completing course work.
4. Grades will not be changed as a result of additional work done by a student unless all students registered for the course are given the opportunity to do similar, additional work.
5. A grade will be changed upon a written statement by the instructor that the grade was a factual error. All grade changes are subject to approval by the instructor's department head and the Dean's Office.
6. Exams will not be administered early and will be administered late only for personal emergencies. Zero credit will be given on exams missed for other reasons (e.g., working at a part time job, travel, or other university associated responsibilities, such as athletics) unless approved at least three weeks in advance of the test by the instructor. The instructor may change the format of a make-up examination (e.g., essay type exam).
7. All academic work must meet the standards contained in "A Culture of Honesty." Each student is responsible to inform themselves about those standards before performing any academic work.

Student-Faculty Communication Sheet
KINS 8210
Spring 2008

Please read the five statements below. After each statement write your initials on the line to indicate that you have read the statement. At the bottom sign and date the form. You will not be permitted to take the first exam until you have turned this page into your instructor.

1. Daily attendance is not required and does not factor directly into my grade, however, I recognize that failing to attend may negatively impact on my course grade because much of the exam material is only covered during lectures. _____

2. I am required to take four exams on the scheduled dates at the scheduled times. I understand that exams will not be administered early and will be administered late only for personal emergencies. I will receive zero credit on exams missed for other reasons (e.g., working at a part time job, travel, or other university associated responsibilities, such as athletics) unless approved by the instructor. I understand that the instructor may change the format of a make-up examination (e.g., essay type exam).

3. I have reviewed my schedule for the semester and found no current or pending conflicts that would prevent me from taking the exams on the scheduled dates at the scheduled times.

4. I recognize that all work completed for this course must be performed by me without unauthorized assistance from others. Examples of unauthorized assistance include copying from another student or allowing another person to copy from me. Another example is completing work for another or allowing another to complete work for me. As a member of the academic community I recognize that I have a responsibility for knowing the policy and procedures on academic honesty. These procedures can be obtained from the Vice President for Academic Affairs or viewed at the following web site: <http://www.uga.edu/ovpi/> _____

5. I am aware that Dr. Tomporowski has office hours Tuesday and Thursday 10:00 - 11:00 and that I can receive assistance from him regarding the course during these hours or at other times by making an appointment with him. _____

I have read and agree to the above policies: _____
Print Name

Signature

Date