
HPHY 410/510 Neurophysiology of Concussion – Winter 2007

University of Oregon, Department of Human Physiology

Instructor:

Paul van Donkelaar 346-2687

348A Gerlinger

paulvd@uoregon.edu

Office hours: MW 12-1:30

In addition, guest instructors with expertise in various aspects of concussion diagnosis, characterization, and rehabilitation will provide a handful of the lectures during the term.

Meeting: MW, 8-9:20 am, 262 Lillis**Course Description:** This course will cover all aspects of the diagnosis of, deficits resulting from, and treatments for concussion. The main emphasis will be on the behavioral deficits associated with the injury and the underlying neurophysiological effects.**Readings:** There is a paperback book entitled, “Head Games” by Christopher Nowinski, that is required for the course. In addition, there will be assigned readings from the primary literature for this course. The relevant readings will be made available prior to the lectures with which they are associated.**Blackboard:** We will use Blackboard to post lecture notes, assigned readings, and any additional information concerning course administration.**Evaluations:** You will be evaluated with several quizzes, 2 mid-term exams and a final exam. The tests will be a combination of multiple choice and short and long essay questions. They will contribute to your final grade in the following manner:

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|---------|-----|
| Quizzes | 10% |
| Midterm | 25% |
| Midterm | 25% |
| Final | 40% |

Final Grades: The following grading system will be used based on the combined scores in each of the assessments above.

| | |
|---------|---------|
| A+/A/A- | 90-100% |
| B+/B/B- | 80-90% |
| C+/C/C- | 70-80% |
| D | 60-70% |
| F | <60% |

Weekly Course Outline

1/8, M Introduction, course overview (PvD)

1/10, W Symptoms, definitions, criteria (PvD)

1/15, M **No School – MLK Day**

Athletic concussion management (Kim Terrell, ATC/R, Athletic Medicine
1/17, W Department)

1/22, M Sensory Deficits (PvD)

1/24, W Motor Deficits - Peripheral Motor System (PvD)

1/29, M mTBI in a hospital setting (Dr. Ray Englander, PeaceHealth)

1/31, W Motor Deficits - Limb and Eye Movements (PvD)

2/5, M **Midterm #1**

2/7, W Attentional Deficits I - (PvD)

2/12, M **No Class – away at meeting**

2/14, W Attentional/Cognitive Deficits - (PvD)

2/19, M Gait Deficits - Basic gait (Dr. Li-Shan Chou, HPHY)

2/21, W Gait Deficits - Gait/Attention Interactions (Dr. Li Shan Chou, HPHY)

2/26, M Gait Deficits - Gait/Cognition Interactions (Robert Catena, HPHY)

2/28, W **Midterm #2**

3/5, M Neurophysiological effects of mTBI (PvD)

3/7, W Rehabilitation of Attentional Deficits (Dr. Tom Boyd, PeaceHealth)

3/12, M Rehabilitation of Cognitive Deficits (Dr. McKay Sohlberg, Education)

3/14, W Review, Course Wrap-up, Evaluations

Wrap up & Course Evaluation

Final Exam: Tu 3/20 10:15am