GEORGE MASON UNIVERSITY

School of Recreation, Health and Tourism

PHED 306 – Motor Learning and Performance (3)

Fall 2009

DAY/TIME: M-W 9:00 – 10:15 am LOCATION: Bull Run Hall, Rm 257

PROFESSOR: Dr. Dominique Banville

OFFICE LOCATION: Bull Run Hall Rm 201c OFFICE HOURS: M-W 10:30–11:00

PHONE NUMBER: 703-993-3579 FAX NUMBER: 703-993-2025

EMAIL ADDRESS: dbanvill@gmu.edu

PREREQUISTES:

None

COURSE DESCRIPTION:

This course is designed to provide students with an understanding of the fundamental process humans use to learn any motor skills (e.g., playing the violin, starting an intravenous line, kicking a ball, walking with an artificial limb, etc.). Students will learn physical, cognitive, behavioral and social principles, facts, and concepts underpining motor learning and performance.

COURSE OVERVIEW

Students will be engaged in reasoning using quantitative and qualitative information, and the analysis of empirical observations in relation to theories while involved in a series of laboratory exercises and projects.

COURSE OBJECTIVES

At the completion of this course students should be able to:

1. Show the application of motor learning principles by defining "skill" and identifying various skill classifications;

2. Using the concept of “Stages of processing” utilized by psychologists, describe the information processing stages as it relates to motor learning and performance;

3. Demonstrate the rationale and characteristics of motor programs;

4. Describe the concept of individual differences related to the nature of motor abilities;

5. Apply motor learning, behavioral and social laws and principles in the learning and teaching of a novel motor skill;

6. Explain how the structure of the learning experience relates to the development of skillful movement for all learners;

7. Use a variety of feedback to communicate progress in the development of skillful movement;

8. Use different strategies to increase self-motivation and motivation of their learner during the acquisition of novel motor skills; and

9. Manage time, space and equipment combined with an instructional routine for teaching a novel skill to a novice learner.

REQUIRED READINGS

Schmidt R., & Wrisberg, C.A. (2008). Motor learning and performance: A Situation-based learning approach (4th ed.). Champaign, IL: Human Kinetics.

EVALUATION

*Requirements*

3 Tests at 75 pts each = 225 pts (45%)

5 Laboratory Reports at 20 pts each: = 100 pts (20%)

2 Projects at 50 pts each = 100 pts (20%)

Final exam = 75 pts (15%)

Projects

Project 1: Student will document his/her personal development in learning a novel motor skill. A quantitative and qualitative report will be submitted at the end of the experiment reporting on the skill level reached, and the various strategies used to improve and motivate oneself.

Project 2: Student will examine the development of motor skill learning in a novice learner. A qualitative report will be submitted at the end of the experiment reporting on the various strategies used to improve the learner's skill level. Concepts presented in class will be utilized throughout the report to explain the different events that occurred during the experiment.

# Attendance Policy

In accordance with the GMU Attendance Policies (University catalog, 2004-2005 p.33), “Students are expected to attend the class periods of the courses for which they register. In-class participation is important to the individual student and to the class as a whole. Because class participation may be a factor in grading, instructors may use absence, tardiness or early departure as de facto evidence of non-participation.”

**The following scale will be used**

\*Attendance is taken at 9:00 am. A student will be considered late once attendance has been taken. Leaving more than 10 minutes before the end of the class will be considered an early departure.

* Two (2) absences are permitted
* Two (2) “tardies”\*= 1 absence
* Two (2) “early departures”\* = 1 absence
* 3-4 absences = 10 points
* 5 absences or more = 15 points

# Grading Scale

465 – 500=A 450 – 464=A- 435 – 449 =B+ 415 – 434=B 400 – 414=B-

385 – 399=C+ 365 – 384=C 350 – 364=C- 300-349=D <300 = F

COURSE OUTLINE

**Day Date Chapter Lecture/Discussion Topic/Laboratory**

M 08/31 1 Presentation of the syllabus; Introduction to Motor Learning & Performance

W 09/02 1 Categories of skills.

M 09/07 **NO CLASS – LABOR DAY RECESS**

W 09/09 1, 2 Processing information and making decisions.

M 09/14 2 Processing information and making decisions**; Laboratory #1: Bimanual Coordination**.

W 09/16 3 Processing information and making decisions;.

M 09/21 3 Sensory Contribution to Skilled Performance: the closed-loop system.

W 09/23 3 Sensory Contribution to Skilled Performance: the closed-loop system. **Introduce Project phase 1**

**Day Date Chapter Lecture/Discussion Topic/Laboratory**

M 09/28 3 Sensory Contribution to Skilled Performance: the closed-loop system. - Reflexes

W 09/30 3 Sensory Contribution to Skilled Performance: The visual System. **Laboratory #2: Vision and Object Manipulation**

M 10/05 **TEST #1 on Chapter 1, 2 & 3**

W 10/07 TBD

M 10/12 **NO CLASS – COLUMBUS DAY RECESS**

Tu 10/13 4-5 Motor program theory; Principles of motor control & Movement accuracy.

W 10/14 5 Principles of motor control & Movement accuracy**; Laboratory # 3: Fitt's Law**.

M 10/19 6 Individual differences & Motor abilities

W 10/21 6 Individual differences and Motor abilities

M 10/26 **TEST #2 on Chapters 4, 5 & 6**

W 10/28 7 Preparation and Strategies to Design Practice. **Project phase 1 due**

M 11/02 7 Preparation and Strategies to Design Practice

W 11/04 8 Supplementing the learning experience. **Introduce Project phase 2**.

M 11/09 9 Supplementing the learning experience.

W 11/11 9 Structuring the learning experience

M 11/16 Structuring the learning experience**; Laboratory #4: Variability of Practice**.

W 11/18 **TEST #3 on Chapters 7, 8 & 9**

M 11/23 10 Feedback on Skill Learning

W 11/25 **NO CLASS – THANKSGIVING RECESS**

M 11/30 10 Feedback on Skill Learning.

W 12/02 10 Feedback on Skill Learning; **Laboratory #5: KR**

M 12/07 11 Integration and Application – **Project Phase 2 Due**.

W 12/09 Review Final

FINAL EXAM: Per Final Exam Schedule, Monday December 14, 2009, **8:00 am- 10:15 am**

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|  | * All students are held to the standards of the George Mason University Honor Code.
* Students with Disabilities: Students having documentation on file with the Disability Support Services Office should bring this to the attention of the .
* All electronic devices must be turned off during classes.
* For more information on the School of Recreation, Health and Tourism, please go to http://rht.gmu.edu
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