

GEORGE MASON UNIVERSITY

School of Recreation, Health and Tourism

PHED 306 – Motor Learning and Performance (3)

Fall 2011

DAY/TIME: W 7:20 – 10:00 pm      LOCATION: Bull Run Hall, Room XXX  
PROFESSOR: Mr. John Jones  
PHONE NUMBER: 571 205 9191      EMAIL ADDRESS: jjon3@gmu.edu

PREREQUISITES:

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 underpinning 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.

Students are held to the standards of the George Mason University Honor Code. You are expected to attend all class sections, actively participate in class discussions, complete in-class exercises and fulfill all assignments. Assignments must be turned in at the beginning of class on the specified date due or **no credit will be given**.

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

Cocker, C. A. (2009). *Motor Learning and Control for Practitioners* (2nd ed.). Scottsdale, AZ: Holcomb Hathaway Publishers.

## EVALUATION

### *Requirements*

3 Exams at 50 pts each	= 150 pts (37.5%)
7 Laboratory Reports at 10 pts each:	= 70 pts (17.5%)
2 Projects at 50 pts each	= 100 pts (25%)
<b>8 chapter quizzes at 10 points each</b>	<b>= <u>80 pts (20%)</u></b>
Total	400 pts

## 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: Video Analysis. Videotaping and performance analysis of a skill unfamiliar to the student performed by a participant of your choice.

### *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**

- One (1) absence is permitted
- Two (2) "tardies"\*= 1 absence
- Two (2) "early departures"\* = 1 absence
- 2 absences = - 10 points
- 3 absences or more = - 15 points

### *Grading Scale*

388 – 400 = A+	372 – 387=A	360 – 371=A-	348 – 359 =B+	332 – 347=B	320 – 331=B-
308 – 319=C+	292 – 307=C	280 – 291=C-	240-279=D	<240 = F	

\*Attendance is taken at 7:20 p.m. 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.

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Fall, 2011

Instructor: Mr. John Jones  
Room:

Mondays 7:20 – 10 PM

jjon3@gmu.edu  
571 205 9191

<u>DAY</u>	<u>DATE</u>	<u>CHPT</u>		<u>LECTURE/DISCUSSION TOPIC/LABORATORY</u>
Mon	08/29	1		Presentation of syllabus, Introduction to Motor Learning & Performance, Categories of skills. Introduce Project Phase 1 <b>Lab 1: Abilities – Cup Stacking,</b>
Mon	09/12	2	<b>Q1</b>	Understanding Movement Preparation, <b>Lab 2: Hick’s Law</b>
Mon	09/19	3	<b>Q2</b>	Behavior Theories of Motor Control. <b>Lab 3: Attention Capacity</b>
Mon	09/26	4	<b>Q3</b>	Neural Mechanisms: Contributions and Control. Review Exam #1 <b>Project Phase 1 - DUE</b>
Mon	10/3	<b>EXAM</b>		TEST #1 on Chapters 1, 2, 3 and 4. Introduce Project Phase 2
<b><u>TUES</u></b>	<b><u>10/11</u></b>			<b><u>SPECIAL SESSION.</u></b> Monday is Columbus Day. Class moved to <b><u>Tuesday.</u></b> 5 Stages of Learning. <b>Lab 4: Vision and Ball Catching</b>
Mon	10/17	6	<b>Q5</b>	The Learner: Pre-Instruction Considerations
Mon	10/24	7	<b>Q6</b>	Skill Presentation. <b>Lab 5: Fitt’s Law – Speed Accuracy Trade-off</b> Introduce Project Phase 2
Mon	10/31	8	<b>Q7</b>	Principles of Practice Design. Review Exam #2
Mon	11/7	<b>EXAM</b>		TEST #2 on Chapters 5, 6, 7 and 8.
Mon	11/14	9		Practice Schedules. <b>Lab 6 Variable Practice &amp; Schema Development</b>
Mon	11/21	9-10		Review Practice Schedules – Diagnosing Errors
Mon	11/28	10	<b>Q9</b>	Diagnosing Errors
Mon	12/5	11	<b>Q10</b>	Correcting Errors. <b>Lab 7 Knowledge of Results</b>
Mon	12/12			Epilogue: Teaching Scenarios. Review Exam #3 <b>Project Phase 2 - DUE</b>
Mon	12/19	<b>EXAM</b>		<b>Final Exam</b> – Chapters 1 - 11



### *Student Expectations*

- Students must adhere to the guidelines of the George Mason University Honor Code [See <http://academicintegrity.gmu.edu/honorcode/>].
- Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].
- Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/1301gen.html>].
- Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- Students are expected to exhibit professional behaviors and dispositions at all times.

### *Campus Resources*

- The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].
  - The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <http://writingcenter.gmu.edu/>].
  - For additional information on the College of Education and Human Development, School of Recreation, Health, and Tourism, please visit our website [See <http://rht.gmu.edu>].
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