

UNIVERSITY OF FLORIDA
College of Health & Human Performance
Department of Applied Physiology & Kinesiology
APK 3200 (Section 0296) – Summer A 2018

I. COURSE TITLE: MOTOR LEARNING & CONTROL (3 CR.)

Instructor: Paul A. Borsa, PhD, ATC
Office location: Florida Gymnasium, Rm. 149
Telephone: (352) 294-1726
E-mail: pborsa@hnp.ufl.edu
Office Hours: MW 11:30 – 12:30pm; other times are by appointment
Lecture: MTWRF 4th period (12:30 – 1:45pm)
Location: MCCB (McCarty B) G086

II. COURSE DESCRIPTION:

This is an introductory course in motor learning and control. It is designed to provide a basic understanding of theoretical concepts on how we learn to control movement and become skilled at movements. Although the emphasis of this course will be behavioral, it will include elements from neurophysiology and neuroscience.

III. COURSE OBJECTIVES:

Upon completion of this course the student will be able to:

- a. acquire a basic understanding of the learning theories applicable to skill acquisition
- b. gain the knowledge and understanding necessary for successful application of the instructional strategies basic to skill acquisition
- c. become aware of current research and trends in motor learning and motor control
- d. become aware of general research paradigms used in motor learning research

IV. REQUIRED TEXT:

Magill, R.A. (2011). Motor Learning and Control: Concepts and Application (10th Ed.). Boston, MA: McGraw Hill.

Lectures notes can be found on eLearning (Canvas System)

V. EVALUATION PROCEDURES:

Quizzes [6 @ 25 pts. each]	100 points (top 4 quiz scores are tallied)
Written Examination I	100 points
Written Examination II	100 points
Written Examination III	100 points
<hr/> Total	<hr/> 400 points

Quiz format will be a combination of fill in the blank, multiple choice, short answer, etc. Written examinations will be presented in a multiple choice format with questions taken from course lectures and required readings.

VI. GRADING PROCEDURES:

Letter grades for this class will be calculated on a percentage basis. The 3 exams scores will be averaged and given a 70% weighting. The top 4 quiz scores will be tallied and given a weighting of 30%. Your final score will be calculated according to the equation below:

$$[(E1 + E2 + E3)/300*(0.7)] + [(Q1 + Q2 + Q3 + Q4)(0.3) = \text{weighted score}$$

The following is the grading scale that will be employed in this class, along with the percentage range for each letter grade:

A = ≥ 90 (4.0)	B = 80-86 (3.0)	C = 70-76 (2.0)	D = 60-69 (1.0)
B+ = 87-89 (3.33)	C+ = 77-79 (2.33)	D+ = 67-69 (1.33)	E = <60 (0.0)

Additional information on UF grading policies can be found on the undergraduate catalog web page: <http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html> or <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

VII. CLASSROOM POLICIES AND PROCEDURES:

1. Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.
2. **Excused absences:** Notification and documentation for excused absences is required!! Students with excused absences have 7 days to make-up exams. Documentation is required for excused absences. If you have an extended absence you must have it on file in the office of the Vice President of Student Development. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.
3. **Attendance and make-up exams/quizzes:** Attendance and punctuality is expected and highly recommended. Make every effort to attend all lectures. Attendance will not directly affect your grade. However, numerous concepts that will be made **ONLY** during class lecture (**and are not in the lecture notes**) will be part of your quizzes and examinations. No makeup examinations or quizzes will be given without a serious and/or compelling reason. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.
4. **Course evaluation:** Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary of results of these assessments are available to students at <https://evaluations.ufl.edu>.
5. **Missed classes:** If you are to miss a class for whatever reason you should make a practice of contacting the instructor prior to class in order to be eligible to make-up a quiz or examination.
6. **Electronic devices and other technology:** The use of cell phones (and the like) is strictly prohibited during lectures and exams. Any cell phone or other electronic device used during an exam will be considered a violation of the student honor code (i.e., cheating) and will result in stiff penalties. Laptop computers are welcome in class as long as you are using it for class-related work. Surfing the web, checking your email, making Facebook posts, or anything of that nature is strictly prohibited. Violation of this policy will result in point deductions at the discretion of the instructor.
7. **Communication:** You are responsible for checking announcements and course postings on CANVAS. This is how your course instructor will communicate with you. All course grades

(quizzes and examinations) will be posted on CANVAS. Any discrepancies should be pointed out to the instructor on or before the last day of finals week.

8. **Appeals** on quizzes & examination grades can only be made by appointment with instructor and will be considered only with a written request describing justification and/or scoring error.
9. **Academic misconduct:** Any student found guilty of academic misconduct will receive an "E" grade for this course. Academic misconduct includes cheating on exams, using notes, copying another's work, etc. There will be no deviation from this policy.
10. **The Honor Code Pledge:** We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor in this class.
11. The phone number and contact site for university counseling services and mental health services: 392-1575, <http://www.counseling.ufl.edu/cwc/Default.aspx>. University Police Department: 392-1111 or 9-1-1 for emergencies.

VIII. COURSE OUTLINE:*

Segment:	Lecture Topics:	Readings:
Weeks 1-2	<u>Unit 1: Introduction to Motor Skills and Abilities</u>	
	Classification of Motor Skills	Ch. 1
	Measurement of Motor Performance	Ch. 2
	Motor Abilities	Ch. 3
	<u>Unit 2: Introduction to Motor Control</u>	
	Neural Basis for Motor Control	Ch. 4/6
Weeks 3-4	Motor Control Theories	Ch. 5
	Sensory Components of Motor Control	Ch. 6
	Performance & MC Characteristics of Functional Skills	Ch. 7
	Action Preparation	Ch. 8
	<u>Unit 3: Attention & Memory</u>	
	Attention as a Limited Capacity Resource	Ch. 9
Weeks 5-6	Memory Components, Forgetting, and Strategies	Ch. 10
	<u>Unit 4: Introduction to Motor Skill Learning</u>	
	Defining and Assessing Learning	Ch. 11
	Stages of Learning	Ch. 12
	Transfer of Learning	Ch. 13
	<u>Unit 5: Instruction & Augmented Feedback</u>	
Demonstration & Verbal Instructions	Ch. 14	
Augmented Feedback	Ch. 15	
Weeks 5-6	<u>Unit 6: Practice Conditions</u>	
	Practice Variability	Ch. 16
	The Amount & Distribution of Practice	Ch. 17
	Whole and Part Practice	Ch. 18

IX. CRITICAL DATES:*

No Class

May 28

Memorial Day

Date

Event

May 21

Quiz 1

May 24

Quiz 2

May 25

Exam 1

June 1

Quiz 3

June 7

Quiz 4

June 8

Exam 2

June 15

Quiz 5

June 21

Quiz 6

June 22

Exam 3

***All dates are tentative and subject to change at the discretion of the instructor**