

## MOTOR LEARNING

APK 3200 ~ 3 CREDITS ~ SUMMER A 2020 (ON-LINE)

**INSTRUCTOR:** Paul A. Borsa, PhD, ATC  
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**OFFICE HOURS:** Scheduled Zoom times (TBA) or by appointment

**MEETING TIME/LOCATION:** MTWRF (on-line delivery accessed through CANVAS)

**COURSE DESCRIPTION:** The course will provide theoretical concepts on how we learn to control our movements and become skilled at performing movements. The course provides background for understanding, analyzing, and teaching skills in sports, rehabilitation and instructional settings with attention given to aspects of psychomotor developments and theoretical models of skill acquisition. Although the emphasis of this course will be behavioral, it will include elements from neurophysiology and neuroscience.

**PREREQUISITE KNOWLEDGE AND SKILLS:** junior standing or above; majors only.

### COURSE LEARNING OBJECTIVES:

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

1. Differentiate and explain learning theories applicable to skill acquisition and retention
2. Apply knowledge of instructional strategies for basic skill acquisition
3. Appraise current evidence and trends in motor learning and motor control
4. Recognize general (classic) research paradigms used in motor learning and control research

**REQUIRED AND RECOMMENDED MATERIALS:** Magill, R.A. (2011). Motor Learning and Control: Concepts and Application (10<sup>th</sup> Ed.). Boston, MA: McGraw Hill.

**COURSE FORMAT:** The course will be taught entirely on-line. Lecture material will be available to students on the CANVAS site. All lectures are pre-recorded and uploaded to the Modules section on CANVAS. Lectures can be viewed on most personal electronic devices (desktop & laptop computer, tablets, etc.) using Mediasite. Students are expected to take notes using the lecture notes provided. Lectures notes can be found in the files section.

## COURSE AND UNIVERSITY POLICIES:

**ATTENDANCE POLICY:** N/A

**PERSONAL CONDUCT POLICY:** “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor 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 (<http://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.

**EXAM MAKE-UP POLICY:** 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.”>

**ACCOMMODATING STUDENTS WITH DISABILITIES:** Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

**ELECTRONIC DEVICES:** N/A

**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.

**COURSE EVALUATIONS:** Students in this class are participating in GatorEvals. This evaluation system is designed to be more informative to instructors so that teaching effectiveness is enhanced and to be more seamlessly linked to UF’s CANVAS learning management system. Students can complete their evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Thank you for serving as a partner in this important effort.

## GETTING HELP:

Health and Wellness

- U Matter, We Care: If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352 392-1575
- Counseling and Wellness Center: <https://counseling.ufl.edu/>, 352-392-1575
- Sexual Assault Recovery Services (SARS) - Student Health Care Center, 392-1161

- University Police Department, 392-1111 (or 9-1-1 for emergencies)  
<http://www.police.ufl.edu/>

#### Academic Resources

- E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. <https://lss.at.ufl.edu/help.shtml>
- Career Connections Center, Reitz Union, 392-1601. Career assistance and counseling. <https://career.ufl.edu/>
- Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <http://teachingcenter.ufl.edu/>
- Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. <http://writing.ufl.edu/writing-studio/>
- Student Complaints On-Campus: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/> On-Line Students Complaints: <http://distance.ufl.edu/student-complaint-process/>

#### GRADING:

Evaluation Components (number of each)	Points Per Component	Weighting %
Lecture Exams (3)	100 pts each = 300 pts	70%
Quizzes (6 total; drop 2 lowest scores = 4)	25 pts each = 100 pts	30%
Extra Credit	3 points possible	0%

**Quizzes:** You will have 15 minutes to complete your quiz. If you miss a quiz due to lateness or absenteeism, you will not be allowed to make-up the quiz. Quiz format will be a combination of fill in the blank, multiple choice, short answer, and /or matching.

**Lecture Exams:** Each exam will consist of 50 questions, 2 points per question. Questions will be in multiple choice and true/false format. Students are not permitted access to any kind of materials or notes during these exams. Exam questions are generated by the course instructor and the focus should be given to the lecture notes when studying. Exams are NOT cumulative and there is no final comprehensive examination. Students will take exams in the same room where weekly lectures are held and will be allowed 50 minutes to complete the exam.

**Extra Credit:** Students will have the opportunity to earn “extra credit” in the form of points from bonus questions given at the end of each exam. Students may earn up to 3 extra credit points per exam (3 exams @ 3 points = 9 points total).

Here is how I will use your bonus points from the exams to calculate your extra credit:

- $1/9 = 0.35$  of a point (won't add much)
- $2/9 = 0.7$  of a point (may be rounded up to a whole point depending on your cumulative score)
- $3/9 = 1$  point added to cum score
- $4/9 = 1.35$  point

- 5/9 = 1.7 points
- 6/9 = 2 points
- 7/9 = 2.35 points
- 8/9 = 2.7 points
- 9/9 = 3 points

Extra credit points will be added to your final cumulative score after exams and quizzes have been tabulated.

Final grade =  $[(\text{Exam 1} + \text{Exam 2} + \text{Exam 3}/300)(.70)] + [(\text{Quiz 1} + 4)(.30)] + \text{EC} = \underline{\hspace{2cm}}$ .

Any requests for additional extra credit or special exceptions to these grading policies will be interpreted as an honor code violation (i.e., asking for preferential treatment) and will be handled accordingly.

Final grades will NOT be calculated using CANVAS. The instructor will calculate your grade using separate software and uploaded to CANVAS once the final tabulations have been made.

**GRADING SCALE:** Quiz and exam scores will be entered or uploaded directly into canvas within 12-24 hrs after completion. If you feel there is an error in grade calculation, please bring it to the attention of the instructor ASAP. "More detailed information regarding current UF grading policies can be found here: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>."

Letter Grade	Percent of Total Points Associated with Each Letter Grade	GPA Impact of Each Letter Grade
A	90.00-100%	4.0
B+	87.00-89.99%	3.33
B	80.00-86.99%	3.0
C+	77.00-79.99%	2.33
C	70.00-76.99%	2.0
D+	67.00-69.99%	1.33
D	60.00-66.99%	1.0
E	0-59.99%	0

WEEKLY COURSE SCHEDULE:

Week	Dates	Lecture Topics	Readings
1	May 11-15	<u>Unit 1: Introduction to Motor Skills and Abilities</u> Classification of Motor Skills Measurement of Motor Performance Motor Abilities <b>Quiz 1 (May 15<sup>th</sup> Ch. 1-3)</b>	Ch. 1 Ch. 2 Ch. 3
2	May 18-22	<u>Unit 2: Introduction to Motor Control</u> Neural Basis for Motor Control Motor Control Theories Sensory Components of Motor Control (Vision) <b>Quiz 2 (May 22<sup>nd</sup> Ch. 4-6)</b>	Ch. 4/6 Ch. 5 Ch. 6
3	May 25-29	<b>Exam 1 (May 25<sup>th</sup> Ch. 1-6)</b> Performance & MC Characteristics of Functional Skills Action Preparation <u>Unit 3: Attention &amp; Memory</u> Attention as a Limited Capacity Resource <b>Quiz 3 (May 29<sup>th</sup> Ch. 7-9)</b>	Ch. 7 Ch. 8 Ch. 9
4	June 1-5	Memory Components, Forgetting, and Strategies <u>Unit 4: Introduction to Motor Skill Learning</u> Defining & Assessing Learning Stages of Motor Learning <b>Quiz 4 (June 5<sup>th</sup> Ch. 10-12)</b>	Ch. 10 Ch. 11 Ch. 12
5	June 8-12	<b>Exam 2 (June 8<sup>th</sup> Ch. 7-12)</b> Transfer of Learning <u>Unit 5: Instruction &amp; Augmented Feedback</u> Demonstration & Verbal Instructions Augmented Feedback <b>Quiz 5 (June 12<sup>th</sup> Ch. 13-15)</b>	Ch. 13 Ch. 14 Ch. 15
6	June 15-19	<u>Unit 6: Practice Conditions</u> Practice Variability The Amount & Distribution of Practice Whole & Part Practice Mental Practice <b>Quiz 6 (June 18<sup>th</sup> Ch. 16-18)</b> <b>Exam 3 (June 19<sup>th</sup> Ch. 13-19)</b>	Ch. 16 Ch. 16 Ch. 17 Ch. 18 Ch. 19

SUCCESS AND STUDY TIPS:

- Read and comprehend all aspects of the course syllabus
- Complete required readings from the chapter in the textbook, watch pre-recorded lectures and take impeccable notes, and attend office hours on a regular basis
- Learning over time approach will help with comprehension of course material