



# Motor Learning and Performance







**Instructor:** Matthew W. Miller, Ph. D.

Email: mwm0024@auburn.edu

**Office Hours:** Thursday 9:00 AM – 11:00 AM and by appointment

**Office Location**: Kinesiology Building, Room 164

**Lab Instructor:** Kip Webster, Ph. D.

Email: ekh0007@auburn.edu

**Office Hours:** By appointment

**Office Location:** Kinesiology Building, Room 140

**Course Number:** KINE 3650

Class Meeting: Monday, Wednesday, Friday, 1:00 – 2:15 PM, Memorial Coliseum 1081

**Lab Meeting:** Tuesday, Thursday, 1:00 – 2:15 PM, Memorial Coliseum 1081

Credit Hours: 4.000





**Texts/Resources:** Magill, R. A. (2011). *Motor Learning and Control: Concepts and Applications (9th ed.).* 

**Course Description:** Study of the processes that influence motor skill learning and performance. Addresses the question of how humans learn and control simple and complex movement skills. Understanding the basic psychological processes in learning and control of movement will help teachers and coaches provide better instruction and practice for the motor skills performer. The course also has applications for those who plan to work in rehabilitation, physical therapy, occupational therapy, industry, or military settings.

**Learning Outcomes:** Students will understand the characteristics and measurement of motor skills; theoretical aspects of how the nervous system controls coordinated movement and learning, and limitations built into the system; how a variety of instructional and practice conditions influence the acquisition of motor skills; how individual differences among learners influence motor skill acquisition and performance.

### **Course Content**

Unit	Topic	Readings (in textbook)
1	What is Motor Learning?	
	Why Study Motor Learning?	
	How is Motor Learning Studied?	
	Classification of Motor Skills	Chapter 1
	Measurement of Motor Performance	Chapter 2
	Motor Abilities	Chapter 3
	Motor Control Theories	Chapter 5
	Motor Control Characteristics of Functional Skills	Chapter 7 (only pp. 135-150)
2	Sensory Components of Motor Control	Chapter 6
	Performance and Motor Control Characteristics of Functional	Chapter 7 (only pp. 158-164)





	T	
	Skills  Action Preparation  Attention as a Limited Capacity Resource	Chapter 8 Chapter 9
3	Defining and Assessing Learning	Chapter 11
	The Stages of Learning	Chapter 12
	Transfer of Learning	Chapter 13
	Demonstration and Verbal Instructions	Chapter 14
4	Practice Variability and Specificity	Chapter 16
	The Amount and Distribution of Practice	Chapter 17
	Whole and Part Practice	Chapter 18
	Mental Practice	Chapter 19
	Augmented Feedback	Chapter 15

# **No Class Meeting on the Following Days:**

Monday May 27

Wednesday June 12

Friday June 14

Friday June 21

Friday July 5

Friday July 12

Wednesday July 24





Friday July 26

### **Assessments:**

### Exams (subject to change)

Unit 1 Exam: Wednesday May 29 and Friday May 31

Unit 2 Exam: Monday June 17 and Wednesday June 19

Unit 3 Exam: Wednesday July 3 and Monday July 8

**Final Exam:** Monday July 29

The first three exams consist of 70% for multiple-choice questions based on lectures from Units 1, 2, and 3, respectively, plus 30% for "Study Questions" from the textbook (see below for more information about these questions). The final exam is semi-comprehensive, consisting mostly (70%) of new material with the remainder consisting of repeat questions from each of the three previous exams, plus Study Questions from the textbook. The multiple-choice portion of the exam will occur on the second day of each exam except for the Final Exam, which is only one day (thus, the multiple-choice portion will occur on this day).

Study Questions for each exam are due during the first 10 min of class on the first day of each exam except the Final Exam, which is only one day (thus, the Study Questions are due on this one day). Questions turned in after the first 10 min of class but still during the class meeting will lose 20%, and questions turned in after the class meeting will receive a 0. After turning in the study questions, class will proceed as normal (e.g., we will have lecture). The questions are to be typed and composed using proper grammar (grammar will determine 20% of the grade of these questions). Put your name at the top of each page. Number the questions as they are numbered in the textbook. The questions must be turned in as hard copies (not via email). Please do not staple the pages together. Specific study questions are listed in the table below.

Exam 1	Exam 2
Chapter 1: Questions 2, 5, 6	Chapter 6: Questions 1, 6, 7, 8
Chapter 2: Questions 3, 4, 10	Chapter 7: Questions 7, 8
Chapter 3: Questions 2, 4, 5	Chapter 8: Questions 1, 6, 7, 8
Chapter 5: Questions 3, 7, 8	Chapter 9: Questions 5, 6, 7, 8
Chapter 7: Questions 1, 2, 3	
Exam 3	Final Exam
Chapter 11: Questions 2, 3, 4, 5	Chapter 16: Questions 2, 4, 6





Chapter 12: Questions 1, 2, 4, 5	Chapter 17: Questions 1, 3, 7
Chapter 13: Questions 1, 2, 6	Chapter 18: Questions 1, 4, 5
Chapter 14: Questions 2, 3, 4, 5	Chapter 19: Questions 1, 3, 4
	Chapter 15: Questions 1, 7, 9

### **Lab Reports**

Lab reports will involve your verification of the accuracy of statements found in Magill's textbook. Here is a summary of the requirements, but more details will be given during the *first lab meeting on Tuesday May 21*. For 16 chapters in the textbook (details below), you will select a factual statement from one reference (the statement can be about an experiment's data or results, a definition, a figure, or a table) and provide the following information:

- 1. Type the reference citation in APA format (authors, article title, journal name, volume number, and page numbers).
- 2. Give the textbook page(s) where the citation is mentioned. What does the textbook say about the material? Quote the passage from the textbook.
- 3. Where is this found in the original source? What does the source say?
- 4. Is the textbook correct in its interpretation of the original source? Briefly justify your answer.
- 5. Also turn in a photocopy of the page(s) from the original source. Highlight or underline the relevant spots. **You do not need to turn in the entire article.**

These reports are to be submitted via Canvas by 5 PM CST the following Fridays:

June 7: Chapters 2 and 3

June 14: Chapters 5 and 6

June 21: Chapters 7 and 8

June 28: Chapters 9 and 11

July 5: Chapters 12 and 13

July 12: Chapters 14 and 16

July 19: Chapters 17 and 18





July 26: Chapters 19 and 15

### **Class Reflection**

The class reflection assignment is due prior to the start of the Final Exam on July 29. This assignment requires the response to a few overarching questions about the class. This assignment does not require research or studying; it only requires reflection. In other words, do not stress about this assignment; just complete it in a thoughtful manner.

## **Grading:**

Assignments contribute as follows to final class grade:

Exam 1: 15%

Exam 2: 15%

Exam 3: 15%

Final Exam: 20%

Lab Reports: 30%

Class Reflection: 5%

Percentages will be associated with the following letter grades:

A: 90.0% ≤

B:  $80.0\% \le$ 

C:  $70.0\% \le$ 

D:  $60.0\% \le$ 

F: 60.0% >

### **Class Policies:**





<u>Attendance</u>: Although attendance is not required, students are expected to attend all classes, and will be held responsible for any content covered in the event of an absence.

Excused Absences: Students are granted excused absences from class for the following reasons: illness of the student or serious illness of a member of the student's immediate family, the death of a member of the student's immediate family, trips for student organizations sponsored by an academic unit, trips for university classes, trips for participation in intercollegiate athletic events, subpoena for a court appearance, and religious holidays. Students who wish to have an excused absence from class for any other reason must contact Dr. Miller in advance of the absence to request permission. Dr. Miller will weigh the merits of the request and render a decision. When feasible, the student must notify Dr. Miller prior to the occurrence of any excused absences, but in no case shall such notification occur more than one week after the absence. Appropriate documentation for all excused absences is required. Please see the *Tiger Cub* for more information on excused absences.

<u>Make-Up Policy</u>: Students are only guaranteed the opportunity to make up assignments due to excused absences (i.e., students are not guaranteed the opportunity to make up assignments due to unexcused absences). Arrangement to make up assignments due to properly authorized excused absences must be initiated by the student within one week of the end of the period of the excused absences(s). Except in unusual circumstances, such as the continued absence of the student or the advent of university holidays, a make-up assignment will take place within two weeks of the date that the student initiates arrangements for it.

<u>Academic Honesty Policy</u>: All portions of the Auburn University student academic honesty code (Title XII) found in the *Tiger Cub* will apply to KINS 7750. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

<u>Disability Accommodations</u>: Students who need special accommodations in class, as provided by the Americans with Disabilities Act, should arrange for a confidential meeting with Dr. Miller during office hours in the first week of classes (or as soon as possible if accommodations are needed immediately). The student must bring a copy of their Accommodations Letter and an Instructor Verification Form to the meeting. If the student does not have these forms, they should make an appointment with the Program for Students with Disabilities, 1288 Haley Center, 844-2096 (V/TT).





<u>Course Contingency</u>: If normal class is disrupted due to illness, emergency, or crisis situation, the syllabus and other course plans and assignments may be modified to allow completion of the course.

<u>Professionalism</u>: As faculty, staff, and students interact in professional settings, we are expected to demonstrate professional behaviors as defined in the College's conceptual framework. These professional commitments or dispositions are listed below:

- Engage in responsible and ethical professional practices
- o Contribute to collaborative learning communities
- o Demonstrate a commitment to diversity
- o Model and nurture intellectual vitality