



Advanced 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
- Course Number:** KINE 7650
- Class Meeting:** Monday – Friday, 2:30 – 4:00 PM, Memorial Coliseum 2043
- Credit Hours:** 3.000
- Prerequisites:** Undergraduate level HLHP 3650 (minimum grade of D) or Undergraduate level KINE 3650 (minimum grade of D)
- Texts/Resources:** Resources (e.g., journal articles) will be made available via Canvas. *Reading of these resources is mandatory.*

Course Description: Overview of factors affecting the learning and performance of motor skills; review of experimental studies and current issues in motor skill acquisition.



Learning Outcomes: Students will be able to dissect and disseminate literature relevant to motor learning/performance as well as design studies that could contribute to the literature and/or apply concepts from the literature in professional settings. Additionally, students will enhance critical thinking skills essential for the aforementioned outcomes.

Course Content

Week	Topic	Readings (Found on Canvas)
1	Introduction Memory Drum Theory Performance Capacity	-Rosenbaum (2005) -Henry & Rogers (1960) -Fitts & Posner (1967)- Chapter 6
2	Stages of Skill Acquisition Psychophysiology of Motor Expertise Implicit and Explicit Motor Learning No Class Thursday - Friday	-Fitts & Posner (1967)- Chapter 2 -Hatfield & Hillman (2001) -Rietschel et al. (under review) -Zhu, Poolton, Wilson, Maxwell, & Masters (2011)
3	Multitasking Lives of Distraction 'Supertaskers' No Class Thursday - Friday	-Strayer & Johnston (2001) -Neider et al. (2011) -Becic et al. (2010) -Watson & Strayer (2010)
4	Journal Club Presentations	
5	Course Recap No Class Tuesday - Friday	
6	Final Projects Last Class is Wednesday	



Assignments:

Quizzes

Unannounced “pop” quizzes will be given *at least* once-a-week. These quizzes will ask to students to answer questions regarding the Readings (posted on Canvas).

Journal Club

Journal Club will involve each student presenting a paper related to motor learning/performance. The paper must be a peer-reviewed article describing an original research study. Students may select a paper on their own or with the guidance of Dr. Miller. If a student selects a paper on his/her own, s/he must receive Dr. Miller’s approval of the paper prior to presenting it.

The student will summarize any necessary background information regarding the study (e.g., existing literature discussed in the paper’s introduction) and then state the purpose of the study. The student will then present and critique the study’s methods as well as state the results. Next, the student will present and critique the author’s interpretations and proposed implications regarding the study’s results (i.e., the paper’s discussion section). Finally, the student will offer his/her own conclusions about the study. Specifically, the student should focus on what future studies could/should be conducted based on the results of the present study and if/how the conclusions of the study can be employed to inform practitioners. Presentations should be *approximately* 15 min in duration. Discussion of the paper among class members will follow the presentation.

Final Project

Students will select a topic in motor learning/performance (topics can include those not covered in class) and conduct a review of the literature regarding this topic. Next, students will either (a) propose an experiment that would make a contribution to the literature they have reviewed [students should include expected results (hypotheses)] or (b) from the literature they have reviewed, apply one or more concepts to a real world situation involving one or more fictional psychomotor performers (these performers can be based on real individuals). Based on this work, students will give a presentation (approximately 15 min in duration) during the week designated for Final Projects.

Through Quizzes, Journal Club, and the Final Project, students will gain expertise in dissecting and disseminating literature relevant to motor learning/performance.



Students will also gain proficiency in thinking about the design of future studies that could contribute to the literature and the application of concepts from the literature in professional settings. In so doing, students will enhance critical thinking skills. In other words, the Quizzes, Journal Club, and the Final Project will help the class members achieve the Learning Outcomes☺.

Class Reflection

The class reflection assignment will be given at the second-to-last class meeting and must be turned in by 5 PM the following day. 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.

Participation

Students' participation will be assessed based on their involvement in class discussions. Such participation will reveal the depth of students' thinking about course content.

Grading:

Assignments contribute as follows to final class grade:

Quizzes-	20%
Journal Club-	25%
Final Project-	40%
Class Reflection-	10%
Participation-	5%

Percentages will be associated with the following letter grades:

A:	90.0% ≤
B:	80.0% ≤
C:	70.0% ≤
D:	60.0% ≤



F: 60.0% >

Class Policies:

Attendance: 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.

Make-Up Policy: 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.

Academic Honesty Policy: 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.

Disability Accommodations: 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).

Course Contingency: 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.

Professionalism: 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
- Contribute to collaborative learning communities
- Demonstrate a commitment to diversity
- Model and nurture intellectual vitality