Advanced Motor Learning and Performance

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

**Email:** mwm0024@auburn.edu

**Office Hours:** Wednesday 9:30 – 11:30 AM and by appointment

**Office Location**:Kinesiology, Room 164

**Course Number:** KINE 7650-001

**Class Meeting:** Tuesday and Thursday, 2:00 – 3:15 PM, Student Activities Center, Room 253

**Credit Hours:** 3.000

**Texts/Resources:** Required Textbook: Hodges, N. J., & Williams, A. M. (Eds.). *Skill Acquisition in Sport: Research, Theory and Practice* (2nd ed.). New York: Oxford University Press. ISBN 13: 9780415607865.

Other Readings: The textbook will be supplemented with mandatory journal article readings posted on Canvas.

**Course Description:** Theories, experimental studies, and current issues in the acquisition, performance, and retention of motor skills.

**Learning Outcomes:** Students will become familiar with the current state of theories related to motor learning and performance, and students will be able to critically evaluate these theories.

**Course Content (*DATES ARE SUBJECT TO CHANGE*)**

* 08/19 – 23
  + Topics
    - Introduction
    - Presenting Information
  + Readings
    - Chapter 1
  + Assessments
    - Chapter 1 Quiz
* 08/26 – 30
  + Topics
    - Presenting Information
  + Readings
    - Chapters 2 – 3
  + Assessments
    - Chapter 2 Quiz
    - Chapter 3 Quiz
* 09/02 – 06
  + Topics
    - Presenting Information
  + Readings
    - Kardas & O’Brien (2018)
    - Chapter 4
  + Assessments
    - Kardas & O’Brien Quiz
    - Chapter 4 Quiz
* 09/09 – 13
  + Topics
    - Optimizing Practice Conditions
  + Readings
    - Daou et al. (2019)
    - Chapter 5
  + Assessments
    - Daou et al. Quiz
    - Chapter 5 Quiz
* 09/16 – 20
  + Topics
    - Optimizing Practice Conditions
  + Readings
    - Chapters 6 & 9
  + Assessments
    - Chapter 6 Quiz
    - Chapter 9 Quiz
* 09/23 – 27 (No Class)
  + Topics
    - None
  + Readings
    - None
  + Assessments
    - None
* 09/30 – 04
  + Topics
    - Chapter 10
    - Review for Exam 1
  + Readings
    - Chapter 10
  + Assessments
    - Chapter 10 Quiz
* 10/07 – 11 (No Class 10/10)
  + Topics
    - None
  + Readings
    - None
  + Assessments
    - Exam 1 (10/08)
* 10/14 – 18
  + Topics
    - Issues in Motor Learning
  + Readings
    - Abe et al. (2011)
    - Reinforcement Learning Chapter
  + Assessments
    - Abe et al. Quiz
    - Reinforcement Learning Chapter Quiz
* 10/21 – 25
  + Topics
    - Issues in Motor Learning
  + Readings
    - Chapter 11
    - Chapter 14
  + Assessments
    - Chapter 11 Quiz
    - Chapter 14 Quiz
* 10/28 – 11/01
  + Topics
    - Skilled Performance
  + Readings
    - Chapter 15
    - Chapter 17
  + Assessments
    - Chapter 15 Quiz
    - Chapter 17 Quiz
* 11/04 – 08
  + Topics
    - Skilled Performance
  + Readings
    - Mishra, Zinni, Bavelier, & Hillyard (2011)
    - Chapter 18
  + Assessments
    - Mishra et al. Quiz
    - Chapter 18 Quiz
* 11/11 – 15
  + Topics
    - Skilled Performance
    - Research, Theory, and Practice: Challenges and Solutions
  + Readings
    - Aglioti, Cesari, Romani, & Urgesi (2008)
    - Chapters 20 & 21
  + Assessments
    - Aglioti et al. Quiz
    - Chapters 20 & 21 Quiz
* 11/18 – 22
  + Topics
    - Student Presentations
  + Readings
    - None
  + Assessments
    - Student Presentations
* 11/25 – 29 (No Class)
  + Topics
    - None
  + Readings
    - None
  + Assessments
    - None
* 12/02 – 06
  + Topics
    - Review for Exam 2
  + Readings
    - None
  + Assessments
    - 12/05: Exam 2

**Assessments:**

Exams

There will be two exams. The value of each exam will reflect the number of questions on the exam. For example, if Exam 1 has 50 questions and Exam 2 has 55 questions, then Exam 1 will be worth 50 points and Exam 2 will be worth 55 points. Exams will cover all content covered in the course, including readings and lectures. If you are late to class on the day of an exam or are absent from class the day on which an exam is occurring for ‘unexcused reasons,’ then you may not have the opportunity to complete the exam and, thus, could receive a grade of zero. If you have an excused lateness or absence, then you will be able to take a make-up exam. The exams will ask to students to answer questions regarding the textbook readings and class lectures/discussions, including discussions stemming from non-textbook readings.

Quizzes

There will be 20 quizzes. The value of each quiz will reflect the number of questions on the quiz. For example, if Quiz 1 has 10 questions and Quiz 2 has 5 questions, then Quiz 1 will be worth 10 points and Quiz 2 will be worth 5 points. Each quiz will be about a reading and will be taken prior to the lecture about the reading. If you are late to class on the day of a quiz or are absent from class the day on which a quiz is occurring for ‘unexcused reasons,’ then you may not have the opportunity to complete the quiz and, thus, could receive a grade of zero. If you have an excused lateness or absence, then you will be able to take a make-up quiz.

Student Presentations

Students will work together in groups to create a presentation, which will be delivered during the penultimate week of class. The presentations will be research focused or application focused. In the former case, students will select one or more motor learning topics and design a study that would make a contribution to the understanding of that topic. In the latter case, students will design a 12 week training program for a learner, and base the program on all relevant motor learning principles. Further details about the student presentations will be provided in class.

**Grading:**

Assesssments contribute as follows to final class grade:

Exams: 40%

Quizzes: 40%

Student Presentations: 20%

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 KINE 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