# Advanced Motor Learning and Performance

Instructor:Matthew W. Miller, Ph. D.

Email: mwm0024@auburn.edu

Virtual Office Hours (when I will be in my Zoom Office Hours Meeting):

Wednesday 12 – 2 PM and by appointment (Meeting ID: 864 2549 7093,

Passcode: KINE164)

Office Location:Kinesiology, Room 164

Course Number: KINE 7650-001

Class Meeting:Tuesday and Thursday, 12:30 – 1:45 PM, SAC 257 or Zoom (Meeting ID: 845 1109 0027, Passcode: KINE7650). Students are free to attend class face-to-face or via Zoom, unless otherwise noted. Lectures will *not* be recorded.

Credit Hours: 3.000

Texts/Resources: Textbook: Hodges, N. J., & Williams, A. M. (Eds.). *Skill Acquisition in Sport: Research, Theory and Practice* (3rd ed.). New York: Routledge. ISBN: 9780815392842

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 and Dates (SUBJECT TO CHANGE)

|  |  |
| --- | --- |
| Week | Lectures/Discussions |
| 08/16 – 20 | Introduction to Class  Motor Learning Research Methods   * Read Kantak & Winstein (2012) * Kantak & Winstein Quiz |
| 08/23 – 27 | Motor Learning Research Methods   * Read Lohse, Buchanan, & Miller (2016) * Lohse, Buchanan et al. Quiz   Focus of Attention   * Read Beilock, Carr, MacMahon, & Starkes (2002) * Beilock et al. Quiz |
| 08/30 – 09/03 | Focus of Attention   * Read Lohse, Jones, Healy, & Sherwood (2014) * Lohse, Jones et al. Quiz * Prepare for Focus of Attention Discussion |
| 09/06 – 10 | Constraints-Led Approach to Practice and Transfer   * Read Ch. 9 * Ch. 9 Quiz * Read Ch. 18 * Ch. 18 Quiz |
| 09/13 – 17 | Constraints-Led Approach to Practice and Transfer   * Read Ch. 11 * Ch. 11 Quiz * Read Gray (2018) * Gray Quiz |
| 09/20 – 24 | Constraints-Led Approach to Practice and Transfer   * Prepare for Constraints-Led Approach to Practice and Transfer Discussion   Motivation, Practice Difficulty, Implicit Learning, and Expecting to Teach   * Read Wulf & Lewthwaite (2016) * Wulf & Lewthwaite Quiz |
| 09/27 – 10/01 | Motivation, Practice Difficulty, Implicit Learning, and Expecting to Teach   * Read Ch. 7 * Ch. 7 Quiz * Read Ch. 3 * Ch. 3 Quiz |
| 10/04 – 08  No Class 10/07 | Motivation, Practice Difficulty, Implicit Learning, and Expecting to Teach   * Read Ch. 17 * Ch. 17 Quiz |
| 10/11 – 15 | Motivation, Practice Difficulty, Implicit Learning, and Expecting to Teach   * Read Ch. 6 * Ch. 6 Quiz * Read Ch. 5 * Ch. 5 Quiz |
| 10/18 – 22 | Motivation, Practice Difficulty, Implicit Learning, and Expecting to Teach   * Read Daou et al. (2019) * Daou et al. Quiz * Prepare for Motivation, Practice Difficulty, Implicit Learning, and Expecting to Teach Discussion |
| 10/25 – 29 | Motor Imagery, Action Observation, and Perceptual-Cognitive Expertise   * Read Ch. 4 * Ch. 4 Quiz * Read Ch. 8 * Ch. 8 Quiz |
| 11/01 – 05 | Motor Imagery, Action Observation, and Perceptual-Cognitive Expertise   * Read Ch. 13 * Ch. 13 Quiz * Read Aglioti, Cesari, Romani, & Urgesi (2008) * Aglioti et al. Quiz |
| 11/08 – 12 | Motor Imagery, Action Observation, and Perceptual-Cognitive Expertise   * Read Kardas & O’Brien (2018) * Kardas & O’Brien Quiz * Prepare for Motor Imagery, Action Observation, and Perceptual-Cognitive Expertise Discussion |
| 11/15 – 19 | Deliberate Practice and Skill Development   * Read Ch. 10 * Ch. 10 Quiz * Read Ch. 19 * Ch. 19 Quiz |
| 11/22 – 26  No Class |  |
| 11/29 – 12/03 | Deliberate Practice and Skill Development   * Prepare for Deliberate Practice and Skill Development Discussion |

## Assignments:

### Quizzes (75% grade)

There will be 21 quizzes, each with 5 questions and a 10-minute time limit. All quizzes will be completed through Canvas during class, so ensure that you bring a device, such as a laptop, tablet, or smartphone, that you can use to complete a quiz when we have one. Attendance will be taken on the day of a quiz, and I will only accept quiz submissions from students who are present, meaning that you may not attempt to take the quiz outside class time. Quizzes are closed source, meaning that you may not use anything other than what you have stored in your brain to complete them. The purpose of the quizzes is to ensure that students are completing and understanding their reading assignments before the class meeting about each reading. Therefore, the quizzes will be taken at the start of the class meeting related to the reading.

### Discussion (25% of grade)

In the class meeting after we conclude a topic, you and your classmates will be asked to verbally answer discussion questions. Each class member will be asked to respond to one of several discussion questions that are presently listed on Canvas. Discussion questions will be randomly assigned at the start of the class meeting, so you must prepare to answer each discussion question. Your preparation may include jotting down some notes about your thoughts related to each question, but you could also write out complete responses to read in class, or you could just take mental notes about your thoughts related to each question. Your response will be worth 10 points, and your grade will be determined by the degree to which you make logical, fact-based responses.

## Grading:

Percentages will be associated with the following letter grades:

A: 90.0% ≤

B: 80.0% ≤

C: 70.0% ≤

D: 60.0% ≤

F: 60.0% >

## COVID-Related Policies:

### Statement on COVID-19 Physical Distancing

### Face Covering Policy

In response to COVID-19, and in alignment with Auburn University's Presidential directives, and local, state, and national health official guidelines face coverings are required at all times while on campus, except when alone in a private office. This includes the classroom, laboratory, studio, creative space, or any type of in-person instructional activity, and public spaces. "A “face covering” is defined as a “covering that fully covers a person’s nose and mouth, including without limitation, cloth face mask, surgical mask, towels, scarves, and bandanas.

If a student has a medical exception to the face covering requirement, please contact the Office of Accessibility to obtain appropriate documentation.

**Please note that this class may require face coverings even if Auburn University lifts its requirement.**

## 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